Dynamics of Development in an Opening Economy: China since 1978

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ABSTRACT

Following market-oriented reforms including the open door policy in 1978, China witnessed rapid economic growth, radical changes in economic structures, impressive improvements in people's livelihood, and accelerated urbanization on the one hand, and widening income disparities both between social groups and between regions on the other. What is the dynamic linkage between the policy reforms and China's rapid but uneven development in the period?

The question is first examined from a development perspective, and is located in the intense debates in development studies. It is found that underlying all policy reforms was a fundamental shift from de-linking to re-linking with market systems, or from passive to active participation in the global market economy. The policy reforms led China to open up to market systems both domestically and internationally, and the key dynamics of development in post-1978 China should be found in market forces released in the opening process.

Then a two-way net-increase model is developed to capture the role of market orientations in economic growth, uneven sectoral growth, and uneven regional growth. Meanwhile, improvements in people's livelihood, accelerated urbanization, and widening disparities in income distribution are also explained in the light of the functioning of market orientations in the opening process. The model and derivative hypotheses are tested with empirical data, and gain substantial support. Challenges that China faces are analysed, policies to meet the challenges are suggested, and implications of the study for developing countries are illustrated.

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Preface and acknowledgements

Like most Chinese who were born in the 1950s, I witnessed both the poverty and political turmoil during the Great Leap Forward and People's Commune movements, the 'three years of natural calamity', and the Cultural Revolution, and the tremendous development performance since the adoption of reform and open-door policies in 1978.* A question lingers in my mind as to what has underlain the reform and open-door policies, and made the striking difference between the pre-and post-1978 periods. In search for an answer, I shifted my research focus to Development Studies in the early 1990s. Professor Zhuoheng Pang, former Dean of the Department of History and currently Director of the Institute of Development Studies, Tianjin Normal University, PRC, gave me important support by appointing me an associate professor in a postgraduate course on development theories.

In 1993, I was granted a scholarship to undertake a PhD by the Australian Agency for International Development. The study for the PhD has provided me with an opportunity to address that puzzling question with help from international experts in the field. I originally started the inquiry at the Centre for Development Studies, the Flinders University of South Australia, and my supervisors Dr John Browett, Director of the Centre, and Dr Bill Brugger, Professor of the Department of Politics, helped me greatly with development theories and China political economy. My research in that period resulted in an article 'China's Open-door Policy in Development Perspective', which appeared in the *Canadian Journal of Development Studies* XVII (1), 1996.

* 'Three years of natural calamity' refers to the period from 1960 to 1962 when a famine prevailed. The Great Leap and People's Commune movements were mainly responsible for the famine, but it was attributed to 'natural calamity' in the pre-1978 period.

That article drew attention from a few publishers in the USA and the UK, and one of them was Nova Science Publishers, Inc., New York. Mr Frank Columbus, president and editor-in-chief of NSP, kindly invited me to contribute to his publication programs, and sent me a book contract for my PhD thesis.

By that time, I had transferred to the National Centre for Development Studies, the Australian National University, for my research needed supervision on development economics and development administration which could be better met at ANU. My supervisors Professor Ron Duncan, Director of NCDS, and Dr Peter Larmour, Director of Graduate Studies in Development Administration, gave me substantial help in the transfer process, and played a vital role in my research in the remaining years of my PhD candidature. With their help, support, and encouragement, the main body of my PhD thesis was written up, and a few articles based upon the thesis were published over that period. Comments from anonymous referees from international journals were also very helpful in improving my work.

My greatest indebtedness for this thesis is, therefore, to the above-mentioned, particularly my supervisors Professor Ron Duncan, Dr Peter Larmour, Dr John Browett, and Professor Bill Brugger. I also wish to thank Professor Gale Johnson, Dr Bill Yang, Dr Xiaowei Zang, and Mr Xinpeng Xu for comments and suggestions, Dr Yiping Huang and Dr Dimitris Hatzinikolaou for technical advice, Ms Maurette Macleod and Ms Penelope Gregory for kind help, Ms Maree Tait and Ms Alison Cumming Thom for editorial assistance, AusAID for sponsoring my PhD study, and Mr Hong Qiao for assistance in collecting data. Meanwhile, I would like to take the opportunity to show my indebtedness to my family who have been patiently supporting my research for years, especially my parents, my wife, my daughter, and my sisters and brothers. Moreover, I would like to thank the following:

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I hope that the study provides answers to the questions that have puzzled me for years, and can also be a help to those who wish to understand the dynamics of development in post-1978 China.

Xiaowen Tian

NCDS
ANU
Canberra

Glossary

APCs	Agricultural Producers Cooperatives
APECA	Asia Pacific Economic Cooperation Association
ASEAN	Association of South-East Asian Nations
CV	Coefficient of variation
DFAT	Department of Foreign Affairs and Trade
EC	European Community
ECLA	Economic Commission for Latin America
EOD	Export-oriented development
EFTA	European Free Trade Association
EP	Export promotion
ETDDs	Economic and Technological Development Districts
EU	European Union
FDI	Foreign direct investment
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GNP	Gross of National Product
GPCR	Great Proletarian Cultural Revolution
IMF	International Monetary Fund
ISI	Import substitution industrialisation
MNCs	Multinational corporations
MPC	Marginal product of capital
MPL	Marginal product of labour
NAFTA	Northern American Free Trade Area
NGO	Non-government organisations
NI	National income
NICs	Newly industrialised countries
OECD	Organisation for Economic Cooperation and Development
OLS	Ordinary least square
OPEC	Organisation of Petroleum Exporting Countries
PRC	People's Republic of China
SD	Standard deviation
SEZs	Special Economic Zones
TFP	Total factor productivity
TOVS	Total output value of society
TVEs	Township and village enterprises
UN	United Nations
WTO	World Trade Organisation

1 Introduction

The study's original aim was to examine China's open-door policy and its impact on China's extraordinary development performance since 1978.[1] As the study went on, however, it was found, from a development perspective, that the open-door policy could not be isolated from other policies that China carried out in the period. In other words, all the changes in China's foreign and domestic policies should be taken as parts of an emerging new development strategy. We had to, therefore, reconsider the open-door policy, redefine opening up in the context of China's special case, and widen the scope of the study—to examine how China's extraordinary development performance occurred in the process of China's radical change in development strategy. In the end, the study was completed in its present form. As changes in both domestic and foreign policy were involved, the study became increasingly challenging, and increasingly interesting as well. In this chapter, we first explain how to define 'opening up' and 'an opening economy' in the context of China's special case, and then provide a broad outline of the thesis.

China: opening up to what?

China adopted its open-door policy in 1978 and has witnessed significant progress in its foreign economic relations and trade ever since. As shown in Table 1, from 1978 to 1995, the value of imports and exports, the value of foreign capital inflow, the

[1] The open-door policy means 'economic opening up to the outside world' (Deng Xiaoping 1985:19). This is different from the concept of 'opening up' used in the study, which means opening up to market systems, both domestically and internationally.

fulfilled value of contracted projects and labour services, and the value of total foreign exchange income from international tourism increased remarkably. It was, therefore, argued that China had suddenly opened up to the outside world, or 'underwent a sharp turn toward participation in the world market', after closing its door for decades (Riskin 1987:366; Gittings 1989:227).

Table 1 **China's foreign economic relations and trade since 1978** (US$ million)

Year	Total value of exports and imports	Total value of foreign capital used	Fulfilled value of contracted projects and labour services	Total foreign exchange income from tourism
1978	206.40	..	..	..
1979	293.30	..	..	4.49
1980	381.40	..	1.70	6.17
1981	440.30	..	..	7.85
1982	416.10	..	3.48	8.43
1983	436.20	19.81	4.52	9.41
1984	535.50	27.05	6.23	11.31
1985	696.00	46.47	8.35	12.50
1986	738.50	72.58	9.73	15.31
1987	826.50	84.52	12.60	18.62
1988	1027.90	102.26	14.30	22.47
1989	1116.80	100.59	16.86	18.60
1990	1154.40	102.89	18.67	22.18
1991	1356.30	115.54	23.63	28.45
1992	1655.30	192.02	30.49	39.47
1993	1957.10	389.60	45.38	46.83
1994	2366.20	432.13	59.78	73.23
1995	2808.50	481.33	65.88	87.33

Note: .. denotes that data are not available.
Source: *Statistical Yearbook of China 1985-1996*, Beijing.

The argument is, however, not correct since China had considerable economic contact with the outside world in the pre-1978 period. This is especially true of the 1950s, the early 1960s, and the early 1970s, when China's economic contacts with the outside world involved not only trade but also capital, technology, and services. Although detailed data have not been released by the Chinese government, it is known

that the value of imports and exports increased 3.6 times in the period from 1950 to 1959, and increased 3.1 times in the period from 1970 to 1978.[2] How then to understand China's opening up since 1978? In other words, how does it differ from the previous approach? From a development perspective, China's opening up does not simply mean opening up to the outside world but implies that China moved away from socialist de-linking toward socialist re-linking with market systems both domestically and internationally, and from passive toward active participation in the global market economy. In fact, China opened up to market systems both domestically and internationally, not simply to the outside world. To legitimise the argument, we have to briefly review the history of the People's Republic of China.

After the Communist Party took national power in 1949, the protracted turmoil caused by the imperialist invasions and domestic wars was put to an end, and China began to strive for development along the orthodox Marxist-Leninist line as exemplified by the experience of the former Soviet Union. According to orthodox Marxist-Leninist doctrine, all the miseries suffered by people in the modern world result from free markets and private ownership and the ensuing exploitation and oppression of the poor by the rich. The only way out of these miseries is to replace free markets and private ownership with socialist planning and public ownership and, therefore, to eliminate the whole system of exploitation and oppression. Apparently, the doctrine was not only against the rich people within a nation but also against the dominant world market system as exemplified by advanced Western countries. Therefore, China had to pursue 'revolutionary' domestic and foreign policies to overcome the resistance to the Chinese Communist movements. To that end, the

[2] *Statistical Yearbook of China 1991*. As shown in Chapter 3, China's economic contacts with the outside world in the pre-1978 period were subject to political considerations (anti-imperialism, anti-Russia, and Third World revolutions). Due to tight control of information, data on the true volume of

Chinese Communist Party launched one political campaign after another, and China was in confrontation with market economies, especially with Western countries. Although China maintained economic contacts with foreign countries, including market economies, for practical purposes, these contacts were determined by de-linking from the global market system and were an expression of passive participation in the global market economy.

Following this line, China seemed to do quite well in the first few years after 1949, and people were very enthusiastic about the utopian Communist society that was believed to soon become a reality. Both the Party leaders and ordinary people thought that Communism would soon spread across the world, and wipe out the world market system dominated by Western capitalist countries. A decade or two later, however, it became increasingly apparent that things were not going as had been expected. Not only had rigid planning and political campaigns led to economic inefficiency and political instability, but also confrontation with advanced Western market economies led to stagnation in the progress of science and technology. By contrast, market-oriented Western economies were showing great vitality and, most significantly, China's neighbours like Korea, Singapore, Hong Kong, and Taiwan were growing very rapidly thanks to the adoption of market economic systems.

At the famous Third Plenum of the Eleventh Central Committee in 1978, the realist Party leaders headed by Deng Xiaoping formally adopted a series of important measures to save China from crisis; these measures were later known as reform (internal revitalisation) and open-door (external opening up) policies. At that time, even the top Party leaders could not provide a theoretical explanation about the nature

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China's foreign economic relations over that period, especially data on the international flow of capital, technology, constructed projects, and labor services, are not available.

of the changes in domestic and foreign policies and the relationship between them. As White (1993: 49) noted:

> When it began in 1978, many of these ideas were still embryonic and provided an initially easy basis of consensus among Party leaders who wanted to get rid of Maoism. There was no 'plan' of reform in the sense of a clear idea of some ultimate end-state and a series of steps or phases to reach it... Inevitably, therefore, when the CCP took the strategic decision to launch reform at its Third Plenum in 1978, they were venturing into uncharted territory and, as medieval maps used to tell the traveller, 'here lie dragons'.[3]

Owing to the theoretical vacuum, the realist Party leaders had to 'grope for stones to cross the river', and carried out their policies through trial and error.

In fact, underlying the changes in China's domestic and foreign policies was a radical change in development strategy: from socialist 'de-linking' toward socialist 're-linking' with market systems. That is, market mechanisms were no longer considered as incompatible with socialism. The reform policies were to 're-link' socialism with market systems domestically while the open-door policy was to 're-link' socialism with market systems internationally. To re-link with market systems internationally, China had to reform its domestic economic system which had so far been alien to the dominant world market system. China's opening up involved, therefore, domestic changes as well. In this sense, we should consider China's opening up as opening up to market systems both domestically and internationally, not only as opening up to the outside world. From then onwards, China's economic contacts with other countries began to be determined by re-linking with market systems, and China began to change from passive to active participation in the global market economy. In China's special case, therefore, an opening economy means an economy re-linking with, or opening up to, market systems both domestically and internationally, or an economy participating actively in the global market economy, or

[3] Also see Deng Xiaoping (1985:49).

an economy undergoing a process of accelerated marketisation at both the national and the international level, or an economy undergoing a transition to market systems both domestically and internationally. The argument enables us to consider changes in domestic and foreign policies as an integrated policy reform package, and examine the dynamic linkage between market forces released by the policy reform package and China's development performance.

In the study, therefore, we use 'opening up', 'active participation', 're-linking', 'opening economies', and 'transition economies' as synonyms in the sense that they all denote opening up to market systems both domestically and internationally. Such a conceptualisation of an opening economy in the study is different from others which define an opening economy only in the light of the orientation in foreign policy, especially the orientation in foreign trade policy. That practice is not appropriate for socialist economies undergoing a re-linking or transition process, although it might be appropriate in other contexts. In consideration of the difference, we focus on China's opening up to the whole market system, not simply on China's opening up to the outside world. You shall be disappointed, therefore, if you expect to find in the study a detailed description of the changing orientation in China's foreign economic relations and trade, or an exclusive analysis of the impact of the changing orientation in China's foreign economic relations and trade on China's development performance.

Outline of the study

As indicated by the title of the thesis, the dynamics of development in an opening economy are the focus of the study. Since opening up to market systems in 1978, China has experienced rapid economic growth, and people's livelihood has improved

remarkably. China's development performance in the period has also been characterised by uneven sectoral growth and the ensuing structural changes, uneven regional development and the ensuing realignment of regional economies, and accelerated urbanisation and polarisation. How did market forces released in the opening process influence the development performance in post-1978 China? This curiosity runs through the whole study.

In Chapter 2, various theories and perspectives on participation in the global market system in the field of development studies are examined to see whether they can shed light on the nature of China's opening up since 1978. Attention is given to two debates: the international trade debate and the modernisation debate. To simplify the question, two broad approaches can be identified in the debates. One approach advocated, in view of advantages of participation in the global market economy, an outward-looking, export-oriented trade and development pattern (the neoclassical economics position as represented mainly by Meier, Bauer, Little, and Balassa) or a comprehensive modernisation/westernisation program (the diffusion/modernisation paradigm represented chiefly by Levy, Lerner, and Nash). The other approach favoured, in view of disadvantages of participation in the global market economy, an inward-looking, import-substitution industrialisation (ISI) trade and development pattern (the structuralist school represented mainly by Prebisch, Singer, and Emmanuel) or a comprehensive socialist de-linking development strategy (the dependency/world-system paradigm represented primarily by Amin, Frank, and Wallerstein). It will be seen from the debates that the comprehensive socialist de-linking development strategy advocated by the dependency/world-system school is extremely crucial for us to understand China's development strategy in the pre-1978 period, and the radical strategic change afterwards.

In Chapter 3 it is shown, from a development perspective, how China's opening up triggered by policy reforms since 1978 implies that China changed from a socialist de-linking to a socialist re-linking development strategy or from passive to active participation in the global market economy and, therefore, should be considered as opening up to market systems both domestically and internationally. Before 1978, China actually pursued a typical comprehensive socialist de-linking development strategy elucidated by the dependency/world-system school for almost three decades. Although there were diverging and changing interpretations and opinions within the school, the original meaning of the de-linking strategy was to establish an 'autarky' socialist system so as to 'break with the world market' (Amin 1974:35). That socialist de-linking strategy found expressions in both China's domestic and foreign policies. In domestic policy, the de-linking strategy necessitated the replacement of market mechanisms by socialist planning, the replacement of private ownership by public ownership of means of production, and the so-called 'continuous revolution' against domestic and international capitalist forces. In foreign policy, it necessitated an overwhelming devotion to a worldwide socialist revolution and an extremely restrictive attitude towards foreign economic relations. Over that period, therefore, China's participation in the global market economy could only be passive, and China did not in any sense 'emerge' in the global market economy. From 1978 onwards, the socialist de-linking development strategy was challenged and abandoned. China began to re-link with, or open up to, market systems both domestically and internationally, and became an active participant in the global market economy.

From Chapter 4 to Chapter 6, an effort is made to evaluate the impact of the strategic change from de-linking to re-linking with market systems triggered by policy

reforms on China's development performance. This is the most challenging task of the thesis. It is challenging in the sense that we cannot draw much on the development theories illustrated in Chapter 2 since they either focus on the international aspect of opening up or overlook the opening up in socialist societies like China where market forces are released by radical policy reforms and, therefore, by strong government intervention. It is challenging also in the sense that the evaluation has to be carried out within the context of an intensive debate on sources of development, especially sources of economic growth, where little consensus has been reached about what are appropriate models for the evaluation and, surprisingly, even the most pro-market school of neoclassical economics ignores market mechanisms in growth modeling. A new theoretical framework has to be developed and related hypotheses have to be derived to evaluate the dynamic linkage between opening up triggered by policy reforms and China's development performance. This is an adventurous endeavour, a risk that we have to take to fulfill the task. The evaluation focuses on three aspects of China's development performance, that is, rapid economic growth, uneven sectoral growth, and uneven regional development, although it also touches upon other aspects.

In Chapter 4, attention is focused upon the impact of the strategic change on economic growth. A growth framework for transition or opening economies is developed to capture the key mechanisms of economic growth in post-1978 China: the interaction between the increase in various inputs on the one hand and the increase in efficiency in input allocation and utilisation through market orientations on the other. The two-way net-increase effect growth model is tested against China's experience. The empirical test shows that the increase in efficiency in input allocation and utilisation through market orientations contributed significantly to China's rapid

economic growth in the post-1978 period. The finding highlights the role of re-linking with market systems in China's growth performance, and also suggests that there was an increasingly strengthened interaction between demand and supply in the process of China's economic growth. Given that the increase in market demand is different from quantity demanded, and is influenced by non-price determinants such as increases in people's real income, the close correlation between rapid GDP growth and remarkable improvements in people's livelihood over the period is to be expected.

In Chapter 5, attention is focused upon the impact of the strategic change on uneven sectoral growth, especially on the rise of non-primary industry and non-state owned enterprises. Based upon the two-way net-increase model, two explanations are proposed for the determinants of uneven sectoral growth: demand-led uneven sectoral growth and productivity-related uneven sectoral growth. It is hypothesised that uneven sectoral growth and the ensuing structural changes in transition or opening economies are a function of the uneven resource allocation introduced by market orientations to increase efficiency, and market forces released in the re-linking or opening process must be the main determinant of uneven sectoral growth and the ensuing structural changes in post-1978 China. Three approaches are applied to testing the hypothesis, and they all support the argument. Discussed here also are the contribution of uneven sectoral growth to China's economic 'miracle', urbanisation, improvements in people's livelihood, and polarisation.

In Chapter 6, attention is focused upon the impact of the strategic change on uneven regional development. There are three most marked phenomena in uneven regional development in post-1978 China: a narrowing of inter-provincial output disparity, a widening of inter-provincial livelihood disparity, and a widening of coastal–interior disparity in both output and livelihood indicators of development.

Three sources are identified to explain uneven regional development: backwardness advantage, location advantage, and the functioning of market orientations. Given that China has been in a process of re-linking with market systems both domestically and internationally since 1978, it is hypothesised that the functioning of market orientations in the opening process influenced the play of both backwardness advantage and location advantage and, therefore, was the most important source of uneven regional development. Three approaches are applied to testing the hypothesis, and they all support the argument. Discussed here also are the contributions of uneven regional development to China's economic 'miracle' and the impact of uneven regional development on the realignment of regional economies.

In Chapter 7, some concluding remarks are made. First, the most important findings of the study are summarised. Then, in the light of the findings, the main challenges that China faces are analysed, such as ideological conflicts, growth constraints, structural adjustment, and development administration. Appropriate policies are suggested. Lastly, implications of the study for other developing countries are discussed. It should be noted that the dynamics of development in an opening economy are rather involved and the study only highlights the most important. You would be disappointed, therefore, if you expect to find in the study an exhaustive explanation for all the determinants of rapid and uneven development in opening China.

2 Participation in the global market economy

In search of an understanding of China's opening up, the study begins with a review of various theories on participation in the global market economy in the field of development studies. In so doing, attention is concentrated on two most important debates over the issue: the international trade debate and the modernisation debate. An attempt will be made to identify in them the underlying questions: advantage and disadvantage, desirability and undesirability, and necessity and evitability of participation in the global market economy. The schools that took part in these debates will be evaluated and assessed in the light of how they approach and answer the questions.

International trade debate

The international trade debate is mainly related to the question of the advantages and disadvantages of participation in the global market economy. Although its origins may be traced back at least to the last century, international trade issues have intensified since the 1940s and 1950s in the debate between the proponents of classical and neoclassical economics and the proponents of structuralism. The debate has focused on the gains and losses of international trade, the positive and negative role of international trade in economic development, and the development strategy related to international trade. Classical and neoclassical economists' doctrine of international trade as an 'engine of growth' has dominated the mainstream international trade theory since the late eighteenth century and become more and

more popular in recent years, thus deserving close examination at the outset. Subsequently, we will turn to the challenges to it from the structuralists.

International trade as an 'engine of growth'

Classical economics originated in England in the eighteenth century. The causes of rapid economic development in England and other European countries over that period attracted close scrutiny from classical economists. They believed, among other things, that international trade is a great, if not the greatest, propelling force in the economic development of European countries. It is above all, as Sir Dennis Robertson (1940:14) put it later, an 'engine of growth'. This belief has become, since the late nineteenth century, one of the key characteristics of neoclassical economists who further extended, modified, and strengthened the theoretical foundations of the classical international trade doctrine.

In the postwar period, when there arose increasingly intensified challenges from structuralists, neoclassical economists defended the universal validity of this international trade doctrine, and applied it to the analysis of the dynamics of economic development in developing countries. The most prominent proponents of the classical and neoclassical economists' international trade doctrine over that period were Meier (1963; 1984), Bauer (1957; 1971), Haberler (1959), Salvatore (1983), Kraiv (1970), Little (1970; 1978; 1979; 1982), Lal (1983), Balassa (1971; 1978; 1982), and Krugman (1991). Although there were differences within this group, most argued that all countries, no matter whether they are developed or developing countries, can gain from international trade according to comparative advantage, that international trade can promote economic development in all trading countries and therefore generate a tendency towards equalisation, and that developing countries

should adopt outward-looking development strategies, participate in the global market economy, and accelerate economic development through free international trade.

According to the classical and neoclassical economists, the most important and direct role of international trade as an 'engine of growth', and the most direct advantage of participation in the global market economy, is that international trade, according to comparative advantage, leads to a 'more efficient employment of the productive forces of the world' (Mill 1848:576; also see Haberler 1959:104; Meier 1984:490). In the first place, it results in the more efficient utilisation of the human and natural resources of all trading nations, thus increasing the world total output from given resources. Two nations, for example, can produce a much greater quantity of commodities and therefore receive greater economic benefits when they trade together and apply themselves to the production and export of the commodities in which they have comparative (not to mention absolute) advantage. In the second place, it results in the full utilisation of otherwise underemployed domestic human and natural resources in each of the trading nations, thus serving as a vent for surplus factors of production in the nation. To a developing nation, in particular, it serves as an 'outlet of its potential surplus of agricultural commodities and raw materials', as shown by the experiences of some developing countries in Southeast Asia and West Africa (Salvatore 1983:255). In the third place, by allowing the trading nations to specialise in producing a narrower range of goods, it enables them to gain greater efficiencies of large scale production (Krugman and Obstfeld 1991:4).

For classical and neoclassical economists, in addition to direct advantages, international trade has some indirect advantages and beneficial effects on economic development. First of all, it leads, through the enlargement of the market, to the extension of the division of labour, thus allowing a country to overcome the

diseconomies of being a small economic unit. This has occurred in the production of light manufactures in some developing economies, especially in such small economic units as Taiwan, Hong Kong, and Singapore (Mill 1848:581; Meier 1984:490; Salvatore 1983:255). Secondly, it enables the trading countries to receive from the outside world the material means (such as machinery, and raw and semifinished materials) indispensable for their economic development. This has been demonstrated by the tremendous effects of the import of advanced material means on the economic growth of developing countries (Haberler 1959:108–9; Salvatore 1983:225). Thirdly, it serves as a vehicle for the transmission of new ideas, skills, technological know-how, managerial talents and entrepreneurship from developed to developing countries, something which is even more important than the transmission of material goods. This has been confirmed by the fact that 'the late-comers and successors in the process of development and industrialisation have always had the great advantage that they could learn from the experiences, from the successes as well as from the failures and mistakes, of the pioneers and forerunners' (Haberler 1959:109; also see Mill 1848:581; Salvatore 1983:255; Meier 1984:490). Fourthly, it also serves as the transmission belt for the international movement of capital, stimulating and facilitating the flow of capital from developed to developing countries. In principle, the more the developing countries engage in international trade, the more they can expect to receive in foreign capital (Haberler 1959:110–111; Salvatore 1983: 55). Fifthly, trade is the best enhancer of free competition and, therefore, the best anti-monopoly weapon. This is due to the fact that, to meet foreign competition, domestic producers have to increase efficiencies in production, and keep low the costs and prices of those 'intermediate or semifinished products used as inputs in the domestic production of other commodities' (Haberler 1959:111; also see Salvatore 1983:255).

Finally, trade can promote the economic development of trading countries through international migration (a trade of labour), international borrowing and lending (a trade of current goods for the promise of future goods), and international exchanges of risky assets such as stocks and bonds (which allow the trading countries to diversify their wealth and reduce the variability of their income) (Krugman and Obstfeld 1991:4).

Although the classical and neoclassical economists' interpretations of the roles of international trade as an 'engine of growth' and the advantages of participation in the global economy were diverse and manifold, they have been all, directly or indirectly, based upon the theoretical assumption of comparative advantage (or comparative cost) originally put forward by Ricardo (1817). The tremendous significance of this assumption lies in that it shows why international trade occurs and how gains from international trade come about. That is, it not only illustrates the main cause of international trade, but also its main advantages or benefits. Thus, without analysing the assumption of comparative advantage, we cannot evaluate and assess the classical and neoclassical economists' interpretations of the roles of international trade as an 'engine of growth' and the advantages of participation in the global market economy.

It is not an exaggeration to say that not only the classical and neoclassical economists' international trade doctrine but also mainstream international trade theory has been based on Ricardo's assumption of comparative advantage. As Findlay (1984:186) noted:

> It is at least as true that all of the pure theory of international trade has emerged from chapter 7 of Ricardo's *Principle*.[1] The incredibly simple example of the exchange of cloth and wine between England and Portugal went right to the core of the concept of comparative advantage and the

[1] Ricardo, D. 1817. *On the Principles of Political Economy and Taxation*, in P. Sraffa (ed.), 1962. *The Works and Correspondence of David Ricardo*, Cambridge University Press, Cambridge.

subsequent development of the subject has remained within the bounds set by Ricardo...

The 'incredibly simple example' of Ricardo's comparative advantage is illustrated in Table 2. England has absolute disadvantage and Portugal has absolute advantage both in the production of wine and in the production of cloth. But, since England has comparatively less disadvantage in the production of cloth than in the production of wine and Portugal has comparatively greater advantage in the production of wine than in the production of cloth, both of them can gain from specialising in the production and export of the commodities which are comparatively more advantageous to them (that is, Portugal the wine, England the cloth).

Table 2 **Comparative cost in terms of labour in the production of 1000 dollar's worth of wine and cloth in Portugal and England** (number of workers)

	Portugal	England
Wine	80	120
Cloth	90	100

Source: Ricardo, D. 1817. *On the Principles of Political Economy and Taxation*, in P. Sraffa (ed.), 1962. *The Works and Correspondence of David Ricardo*, Cambridge University Press, Cambridge.

The most important implication of Ricardo's assumption of comparative advantage is that international trade can benefit participant countries not only under the circumstance of absolute advantage, but also under the circumstance of

comparative advantage.[2] In other words, even if a country has no absolute advantage in any branch of production compared with another country, it can still gain from trade with that country by specialising in the production and export of their most comparatively advantageous goods. This is very important in analysing the international trade of developing countries.

Simplification is one of the strong points of Ricardo's assumption, but it is also one of its weak points. It assumes only one factor of production (labour), thus overlooking other factors of production and their roles both in the formation of comparative advantage and in the international division of labour and international trade. It is here that the neoclassical economists extended and modified Ricardo's simple assumption of comparative advantage. The greatest contribution was made by Hecksher, Ohlin, and Samuelson. They consider the different factor endowments between countries (such as land, capital, and labour) as the basis for comparative advantage, for specialisation, and for international trade. According to the Hecksher–Ohin–Samuelson theorem, countries should find their comparative advantage in their relatively abundant factor endowments, and specialise in the production and export of the goods comparatively to their advantage (such as land-intensive, labour-intensive, and capital-intensive goods). The capital-poor developing countries, for instance, should specialise in the production of labour-intensive or land-intensive goods and export them in return for the capital-intensive products of developed countries. In so doing, international trade between countries with different factor endowments will generate a tendency towards equalisation of factor prices, and, therefore, can not only

[2] The assumption of absolute advantage was first expressed by A. Smith. It was assumed that a country can gain from international trade when it has an absolute advantage in the goods it produces and exports as compared with its trading partner. In the case of England and Portugal in Table 1, only if England has an absolute advantage in either cloth or wine, can it gain from trade with Portugal. That is, to gain from trade with Portugal, England must either produce the wine with the labour of fewer than 80 workers or produce the cloth with the labour of fewer than 90 workers.

make all the trading countries better off but also narrow the economic discrepancy between them (Gemmell 1987:14; Grimwade 1989:10–14).

From the 1950s onwards, the Hecksher–Ohlin–Samuelson theorem met criticism even from within mainstream international economics. From empirical studies, economists found: (1) contrary to the theorem, the exports and imports of some countries were not in keeping with their comparative advantages in terms of factor endowments (the Leontieff Paradox); (2) contrary to the theorem, international trade grew much faster between countries with similar factor endowments than between countries with different factor endowments (the intraindustry trade argument). Faced with these critiques, neoclassical economists tried to introduce additional factors (natural resources, human capital, technology, demand, and economies of scale) into the hypothesis of comparative advantage in order to explain the two empirical phenomena seemingly contradictory to it (Pomfret 1991:75).

To explain the Leontieff Paradox, neoclassical economists argued, among other things, that natural resources and human capital play an important role in production and trade. On the one hand, different natural resources are explored by different factors. Minerals and petroleum, for example, can only be efficiently obtained with capital-intensive techniques, but others not. This might explain why some capital-abundant countries with rich mineral or oil resources still need to import capital-intensive goods (Vanek 1959; Pomfret 1991). On the other hand, there are differences between countries in the amounts of human capital which are available. Skilled labour, for instance, embodies a larger amount of human capital than unskilled labour. This might help to explain why some labour-scarce but capital-abundant countries still export labour-intensive goods (Keesing 1966; Kenen 1965; Pomfret 1991).

To explain the intraindustry trade argument, neoclassical economists argued, among other things, that technology, demand, and economies of scale play an important role in production and trade. Technological innovations are usually generated in, and initially diffused among, skill-abundant and high wage countries. Trade between countries with similar factor endowments therefore grows faster (Hufbauer 1966; Vernon 1966; Hirsch 1967; Grimwade 1989; Pomfret 1991). Furthermore, unlike the trade of primary goods (which is determined mainly by factor endowments), the trade of manufactured goods is determined mainly by the structure of demand. Given that the structure of demand for manufactured goods is determined mainly by the level of per capita income of a country, countries with similar levels of per capita income are likely to have similar structures of demand. Thus, the trade of manufactured goods goes initially between countries with similar levels of per capita income and factor endowments (Linder 1961; Grimwade 1989). Finally, economies of scale may lead a country to produce and export very limited varieties of a certain product, and to import other varieties of this product from countries with similar factor endowments so as to satisfy domestic minority interests (Grubel and Lloyd 1975; Grimwade 1989; Pomfret 1991).

In explaining these phenomena, neoclassical economists argued that empirical evidence did not prove erroneous Ricardo's assumption of comparative advantage and the Heckscher–Ohlin–Samuelson theorem. Rather, it showed that they needed modification and extension. The modification and extension further demonstrated and explained the validity of the classical and neoclassical economists' doctrine of international trade as an 'engine of growth', the advantages and benefits of participation in the global market economy, and the desirability of an outward-looking development and trade strategy (Pomfret 1991:65). Even if the neoclassical

economists' explanations for the two empirical phenomena and, therefore, their modification to, and extension of, the comparative advantage assumption are sustained, however, their international trade doctrine, their interpretations of advantages of participation in the global market economy, their favoured outward-looking strategy, and, most important of all, their key hypothesis of comparative advantage, are still vulnerable to criticism in at least four aspects.

To begin with, the assumption of comparative advantage explains only the gains from trade, but not the distribution of the gains between different trading countries. Even if the assumption of comparative advantage holds, one question still remains unanswered: under comparative advantage, how are gains from trade distributed between the trading countries? Given the growing difference in technology progress and in the terms of trade between developed and developing countries, it is very likely that international trade may benefit developed countries more than developing ones. Some neoclassical economists simply avoided addressing the question by saying that 'some trade is better than no trade'. The answer is unsatisfactory since it remains silent on the uneven gains from international trade and the accumulated impact of the unevenness on the economic development of different countries.

Secondly, even though neoclassical economists might have explained the causes of intraindustry trade, they still have not satisfactorily explained its consequences. Some contemporary neoclassical economists have documented the increasing share of intraindustry trade accounted for by developed countries in the total volume of world trade, and pointed to its negative effects. Krugman and Obstfeld (1991:139–4), for instance, stated:

> Intraindustry trade plays a particularly large role in the trade in manufactured goods among advanced industrial nations, which accounts for most of world

> trade. Over time, the industrial countries have become increasingly similar in their levels of technology and in the availability of capital and skilled labour...There is both a good side and a bad side to this favourable view of intraindustry trade. The good side is that under some circumstances trade is relatively easy to live with and therefore relatively easy to support politically. The bad side is that trade between very different countries or where scale economies and product differentiation are not important remains politically problematic. In fact, the progressive liberalisation of trade that characterised the 30-year period from 1950 to 1980 was primarily concentrated on trade in manufactures among the advanced nations... If progress on other kinds of trade is important, the past record does not give us much encouragement.

The most important element of the 'bad side' lies not in 'political' but in 'economic' aspects. There is no doubt that if the classical and neoclassical economists' doctrine of international trade as an 'engine of growth' holds true, then the increasing share of intraindustry trade within developed countries in the total volume of world trade simply means that the 'engine' has worked and will still work more efficiently for developed countries than for developing countries. It follows that the economic discrepancy between the South and the North will not narrow, but will widen!

Thirdly, due to the different effects of the distribution of gains from trade and the intraindustry trade on developed and developing countries analysed above, the neoclassical economists' equalisation argument cannot be sustained without qualifications. Considerable evidence showed that, contrary to this argument, the disparities between developed and developing countries were growing (see next chapter). The rise of the newly industrialised countries (NICs) did not, as some neoclassical economists expected, change the overall picture of a polarised world. The development gap has already attracted increasing attention on the international arena in the past few decades, but has inspired little interest from the neoclassical economists. A key question needs to be addressed: does market economy have a inherent tendency towards equalisation or a tendency toward divergence? If it is the former, how is the widening economic gap between the North and the South to be

explained? If it is the latter, how are the political and economic tensions in a world increasingly polarised between have-lots and have-nots to be addressed? Neoclassical economics alone, I am afraid, is unable to undertake this inquiry. It is here that classical and neoclassical economics has met the strongest challenge from structuralists.

Fourthly, the classical and neoclassical economists' assumption of comparative advantage, and the international trade doctrine derived from it, are based on a hypothesised situation of free markets and free competition. In the real world, however, rarely are either to be found. Government intervention in the market economy has long been acknowledged by most scholars, even neoclassical economists. On the one hand, even the success of the NICs, oft- mentioned by neoclassical economists in support of their doctrine, suggests the important role of government intervention in promoting economic development (Enos 1984; Michell 1984; Browett 1986; Bradford 1986; Todaro 1989; Tan 1992). On the other hand, some oppressive regimes were 'conductive to the maintenance and extraction of high rates of profits by multinational corporations (MNCs)', and, therefore, strengthened the MNCs' monopoly position in the market and hindered trade and economic development in developing countries (Clapp and Massey 1983; also see Browett 1986). How, therefore, do classical and neoclassical economists manage in a real world full of government interventions in the market economy? The classical and neoclassical economists' theories themselves, again, are insufficient to (at least satisfactorily) incorporate the interplay between government forces and free market forces in economic development.

In spite of these weaknesses, however, the classical and neoclassical economists' international trade doctrine and their assumption of comparative

advantage have proven quite successful in explaining many phenomena of international trade and economic development and, therefore, can be considered as very powerful tools in analysing trade and growth patterns. This has been shown, in different degrees, both by the rise of the NICs owing to their successful outward-looking development strategies, and by the reorientation of China's development strategy in the late 1970s and its tremendous successes in the past two decades or so. Before providing empirical evidence for this argument, however, we had better first consider the arguments about the disadvantages of participation in the global market economy.

Unequal distribution: ISI versus EOD

Arguments about the disadvantages of participation in the global market economy were initially raised by the proponents of structuralism from the point of view of the experience of underdeveloped countries. Although structuralism is a well-established approach in the field of development studies, its origins, its basic views, and even its exponents have been a matter of dispute for a long time (Chenery 1965; Little 1982; Arndt 1985). As far as international aspects are concerned, however, structuralism originated in Latin America with the establishment of the Economic Commission for Latin America (ECLA) in Santiago, Chile, in 1947. This United Nations agency published, under the leadership of its executive secretary, Raul Prebisch, a number of books and articles from the late 1940s onwards which laid down the theoretical foundations of the structuralist school. Besides the ECLA members, some scholars

(including non-Latin American scholars) such as H. Singer, A. Emmanuel, G. Myrdal, and W.A. Lewis also contributed to the structuralist approach.[3]

Notwithstanding the wide differences between them, structuralists are clearly characterised by their profound dissatisfaction with the classical and neoclassical economists' doctrine of international trade as an 'engine of growth' and the assumption of comparative advantage. Structuralists argued that international trade based upon comparative advantage leads some countries (advanced, industrial, high income, or high wage countries) to specialise in the production and export of manufactured goods or high labour cost goods, and leads other countries (backward, underdeveloped, low wage, or low income countries) to specialise in the production and export of primary goods and low labour cost goods. Due to the secular deterioration of the terms of trade of primary and low labour cost goods, the gains from trade are unequally distributed between the two kinds of countries. Contrary to the classical and neoclassical economists' international trade doctrine, international trade has not led to the equalisation of factor prices and income between these trading partners, but to the enlargement of economic disparity between them. International trade may be an 'engine of growth' for advanced, industrialised, high income or high wage countries, but it is a 'mechanism of international inequality' for backward, underdeveloped, low income, or low wage countries (Myrdal 1956; also see Prebisch 1950; 1959; 1963; Singer 1950; 1971; Emmanuel 1972). In this way, participation in the global market economy through international trade has brought about many disadvantages for underdeveloped countries.

[3] Among these the most controversial may be Emmanuel who was considered not as a structuralist but as a neo-Marxist by many writers (for instance, Hunt 1989; Brewer 1980). I would argue that his argument about unequal distribution, his assumption of a deterioration of the terms of trade, and his policy suggestion of import substitution industrialisation were basically in line with structuralist school, though he examined and interpreted these issues from a distinctive angle.

According to structuralists, the principal and direct disadvantage of international trade is that it leads to inequitable resource allocation at both international and national levels. At the international level, resources for the production of manufactured goods or high labour cost goods have been increasingly accumulated in developed countries, whilst resources for the production of primary goods or low labour cost goods have been increasingly accumulated in underdeveloped countries through trade and the international division of labour. At the national level, international trade and the international division of labour have biased resource allocation in underdeveloped countries towards the export sector and against the domestic sector, and, therefore, resulted in a dual economy in these countries. The export sector has developed, with substantial foreign assistance, into the most advanced part of the economy whilst the domestic sector remains traditional, unable to absorb a rapidly growing population. The surplus labour resulting from this dual economy keeps wages and prices in these countries at a very low level. As a result, international and national resource allocation has generated inequitable international and national economic structures which have, through the deterioration of the terms of trade, led to unequal gains and income distribution, and made the rich richer, the poor poorer. (Prebisch 1950: chapters 1 and 2; Lewis 1954:442–3; Myrdal 1956:225; Emmanual 1972:269–70; Singer 1984:275).

In addition, international trade has some indirect or secondary disadvantages for underdeveloped countries. First of all, it makes the economic development of these countries subject to that of developed countries. The vital importance of the production and export of primary goods for developing countries leads them to depend on the demand of developed countries for their primary products. (ECLA 1951:chapter 2; Prebisch 1950:chapters 1 and 3; 1959:266–7; Hunt 1989:30).

Secondly, international trade worsens the financial situation of developing countries. As the economic development of developing countries requires increasing imports of capital-intensive goods such as power plant, machinery, transportation and communication equipment, these countries have to expand exports to ensure increasing amounts of foreign currency. Due to the deterioration of the terms of trade of developing countries, these countries cannot obtain enough foreign currency from international trade, thus encountering serious financial problems such as balance of payments and inflation (Prebisch 1950:chapters 1 and 4). Finally, but not exhaustively, in terms of opportunity costs, international trade based upon comparative advantage and the international division of labour diverts the efforts of developing countries from manufacture to primary production, thus withholding 'from the course of their economic history a central factor of dynamic radiation which has revolutionised society in the industrialised countries' (Singer 1950:48). If developing countries had not become as specialised as they are now in the production and export of food and raw materials and, therefore, had 'provided the means of producing manufactured goods elsewhere with superior efficiency', they might have obtained their own dynamics of growth which would have not only promoted their economic development to a much higher level, but also greatly enhanced their 'general level of education, skill, way of life, inventiveness, habit, store of technology, creation of new demand' (Singer 1950:46–7). In other words, international trade is 'positively harmful' to developing countries to the point that it has deprived them of all the economic, social, and cultural benefits of industrialisation (Singer 1950:46).

Faced with these disadvantages, developing countries should abandon their long-pursued 'primary-export model' or 'outward-oriented development model' to

adopt a 'inward-directed' development strategy, especially the import substitution industrialisation strategy (ISI). By ISI, structuralists basically meant the promotion of industrialisation through substitution of domestic production for imports of industrial goods (Prebisch 1959:253; Kay 1989:27). By diverting resources from the production of primary goods to that of manufactured goods and thus changing the inequitable international and national economic structures, the ISI strategy can help developing countries to stop the adverse trend of a deterioration in the terms of trade and, therefore, destroy the mechanism of maldistribution of gains suffered by them. This is achieved, as Emmanuel (1972:268) noted, in two ways: 'On the one hand, the traditional exports diminish, while the world's needs continue unchanged for a certain period of time, which results in an upward pressure on prices; on the other, the traditional imports also diminish, and the partner who stays geared to an expansion of trade sees his sales fall off sharply, which compels him to reduce his price'. As a result, developing countries can eradicate, through ISI, the root cause and mechanism of all the disadvantages of international trade based upon the conventional international division of labour (Prebisch 1950:1; 1959:253–4; Singer 1950:56–7; Emmanual 1972:267–8).[4]

It was well acknowledged that structuralists' arguments about the disadvantages of participation in the global market economy and their policy suggestions are based upon the assumption of a deterioration in the terms of trade of developing countries (Kay 1989:31; ECLA 1949; Prebisch 1950; 1959; 1963; Singer 1950; 1972; Emmanuel 1972). As for the causes of the deterioration, structuralists provided various interpretations, of which the following are best known.

[4] Some structuralists, such as Prebisch and Singer, later realised the shortcomings in the ISI strategy, and changed their opinions about this strategy accordingly (Prebisch 1964; Singer 1971).

The first interpretation dealt with the different impacts of productivity growth on developed and developing countries. The progress of technology and productivity was much faster in manufacturing production in developed countries than in primary production in developing countries, and the change in income and prices responded to the uneven productivity growth differently in the two kinds of countries. In developed countries, the income increased more than productivity in the upswing of the trade cycle and did not decrease in the downswing of that cycle owing to the effort of workers' unions to maintain the wage level. The prices of manufactured goods in these countries therefore did not fall with the progress in technology and productivity. In developing countries, by contrast, income increased less than productivity in the upswing of the trade cycle and fell steadily in the downswing of that cycle due to the lack or weakness of workers organisations. The prices of primary products in these countries therefore fell with the progress in technology and productivity (Prebisch 1950:chapter 2; Singer 1950:section 4; Hunt 1989:131–2).

The second interpretation dealt with the differential demand for primary goods of developing countries and manufactured goods of developed countries. The demand for primary products of developing countries fell for a long period of time for three reasons. First, the income elasticity of demand for primary goods was much lower than that for manufactured goods. With progress in technology and productivity, developing countries' demand for manufactured goods increased faster than their income while developed countries' demand for primary goods increased slower than their income. This was because, as technology progressed and income increased, an increasingly smaller proportion of income was spent on food (the Engel's law) and raw materials (due to the substitution of synthetic for such materials), whilst an increasingly larger proportion of income was spent on manufactured goods (Singer

1950:section 4; Prebisch 1963:291; Kay 1989:32–3). Secondly, the shift of the world's economic centre from the UK to the USA in the beginning of this century further reduced the demand of developed countries for primary goods of developing countries. Almost throughout the entire nineteenth century, Britain (due to its relatively scarce resources) exported substantial proportions of manufactured goods in return for imports of primary goods, thus 'offsetting in the peripheral countries the effects of the lower income-demand elasticity for their primary commodities' (Prebisch 1959:266). In the twentieth century, the USA (due to its relatively rich resources) did not import many of primary goods, and peripheral countries suffered a worsening effect of the lower income-demand elasticity for their primary goods (Prebisch 1950:chapters 1 and 3; 1959:266; Hunt 1989:132). Thirdly, protectionist policies in developed countries also deeply affected the demand for the primary goods of developing countries. In fear that 'the competition from increased peripheral exports at lower prices' might threaten the primary producers in their own countries, developed countries often adopted protectionist policies to subsidise domestic primary production and limited primary imports from developing countries (Prebisch 1959:263; also see Hunt 1989:133). The decreased demand for the primary goods of developing countries and the increased demand for the manufactured goods of developed countries led the prices of the former to fall and the prices of the latter to rise, and, therefore, resulted in a deterioration in the terms of trade.

The third interpretation dealt with the differential mobility of productive factors. It was argued that capital was internationally mobile whilst labour was not. The international mobility of capital equalised the rate of profit in all countries while the international immobility of labour widened the disparity of wage costs between countries. The prices of goods exchanged between developed and developing

countries primarily depended, therefore, on the relative wage costs between these countries. The high wages and high living standards enjoyed by labourers in developed countries drove the prices of goods produced in, and exported from, these countries upwards, while the low wages and low living standards suffered by labourers in developing countries pressed the prices of goods produced in, and exported from, these countries downwards. It followed that the deterioration in the terms of trade was not related to a particular kind of product (primary goods) but to a particular kind of country. No matter what goods low income or low wage countries produced and exported, their prices showed a downward trend as compared with the prices of goods produced in, and exported from, high income or high wage countries. The products containing a certain unit of labour in developed countries were exchanged for products containing many more units of labour in developing countries. It was upon this understanding that Emmanuel developed the theorem of unequal exchange (Emmanuel 1972; also see Brewer 1980:chapter 9; Hunt 1989:chapter 6).

Although structuralists differed on the causes of the deterioration in the terms of trade, most of them agreed upon its disastrous consequences and its remedy (ISI). Structuralists' argument for ISI had a considerable influence on developing countries and some international agencies in the early postwar period. Adopting the ISI strategy, some developing countries did make considerable progress in their economic development for a time. The structuralist approach met, however, with critiques from neoclassical economists from the very beginning. As the ISI strategy later revealed obvious shortcomings and side-effects in developing countries, the critiques became more and more fierce. In defending their international trade doctrine

and the assumption of comparative advantage, neoclassical economists focused their critiques of structuralism on two aspects.

First, the critiques focused on the assertion of a deterioration in the terms of trade. It was argued that the structuralists' estimates of trends in the terms of trade were not valid because they used base periods of time and base groups of countries that the structuralists had chosen for their own purposes. Even if there were a deterioration in the terms of trade against primary products over the periods examined by structuralists, this could not be generalised for other periods, especially for the postwar period. Even if some countries did experience such a deterioration, this could not be generalised for all developing countries. In fact, evidence showed that the terms of trade of developing countries as a whole not only did not deteriorate in the long run, but were more favourable in recent years than at practically any time in recorded history (Bauer and Yamey 1957:242; Bauer 1971:240–1; Spraos 1980:119–26; Michaely 1982:28; Krueger 1984:559–60).

In addition, the accuracy of the concepts used by structuralists was questioned. In particular, it was noted that the concept 'terms of trade' has different meanings: the commodity terms of trade, the single- factorial terms of trade, and the income terms of trade. While discussing the terms of trade, structuralists only referred to the first, leaving out of consideration the last two which, however, are very important in determining whether a country can benefit from international trade or not. By single-factorial terms of trade, neoclassical economists meant the 'commodity terms of trade corrected for changes in productivity in producing exports' (Meier 1984:505). By taking into consideration changes in the costs of production and the productivity in the export sectors, this concept indicates 'the volume of imports which can be bought with the output of a unit of resources of the exporting country' (Bauer

1971:246). According to this concept, a fall in export prices as compared with import prices (that is, a deterioration in the commodity terms of trade) may happen at the same time that the single-factorial terms of trade improve. This means that the costs of production of exports drop to a greater degree than the export prices. In this case, a country can benefit from international trade even if its commodity terms of trade deteriorate, for the productivity in its export industries rises. By income terms of trade, neoclassical economists meant the 'commodity terms multiplied by quantity of exports' (Meier 1984:505). By taking into consideration changes in the absolute volume of exports, this concept indicates the volume of imports which can be bought with total exports. According to this concept, a deterioration in commodity terms of trade may happen at the same time that the income terms of trade improve, that is, the volume of exports increases more rapidly than import prices fall. In this case, too, a country can benefit from international trade even if its commodity terms of trade deteriorate, for 'the country's capacity to import is then greater, and this will ease development' (Meier 1984:505). According to the neoclassical economists, both the single-factorial terms of trade and the income terms of trade have, due to increases in productivity and volume of exports, actually improved for many underdeveloped countries. Therefore, even if underdeveloped countries had suffered from a deterioration in their commodity terms of trade, that would not mean that international trade could not promote their economic development.

Neoclassical economists asserted, therefore, that the assumption of a deterioration in the terms of trade was both theoretically and empirically wrong, and that structuralists' arguments about the unequal and unjust distribution of income and the growing gap between the North and the South could be sustained neither

theoretically nor empirically (Bauer 1971; Little 1978; Sen 1981; Findlay 1981, 1984).

Neoclassical economists' second set of critiques was leveled at the ISI strategy favoured by structuralists. Neoclassical economists argued that this strategy entailed economic policies of government intervention and protection (such as selected tariffs, import quotas, cheap credit, foreign exchange and investment licensing, tax remission on capital investment, and overvalued exchange-rates). These policies ignored price mechanisms and comparative advantage, and led to many undesirable economic distortions. Among these the following were considered as the most notorious.

- These policies promoted industrialisation at the expense of agriculture and infrastructure. As a result, agricultural production was characterised by 'backward agriculture techniques', 'a large illiterate peasantry', and 'primitive or non-existent agricultural extension services', and the underdeveloped agricultural sector was unable to meet the domestic demand for foodstuffs (Baer and Samuelson 1977:1). The infrastructure in transport, power, and communication received inadequate investment and, therefore, failed to provide essential services to other economic sectors. Manufacturing industries, by contrast, suffered from excess capacity due to overinvestment (Little 1970:9; Meier 1984:393).
- These policies promoted industrialisation at the expense of exports and, therefore, resulted in serious financial problems. Import restrictions entailed the overvaluation of the exchange rate and, therefore, had the effect of discouraging export industries (exporters then received less domestic currency for a given quantity of exports). The reduction in

exports led to a shortage of foreign exchange and a worsening of the balance of payments (Little 1970:chapters 1, 2, 3, and 5; Balassa 1981:11; Meier 1984:393).

- These policies worsened the problems of unemployment and the unequal distribution of income. They encouraged new industries to adopt capital-intensive rather than labour-intensive technologies, thus 'resulting in a relatively low rate of growth of industrial employment' (Baer and Samuelson 1977:2). Combined with other factors such as 'taxing agriculture' (Little 1970:6), this increased the inequality in the distribution of income (Meier 1984: 393).
- These policies increased, paradoxically enough, an economy's external dependence. They encouraged the import of some crucial capital goods and raw materials needed in ISI from industrialised countries, thus decreasing the economy's self-sufficiency (Little 1970:59–63; Baer and Samuelson 1977:1).
- By preventing competition and therefore generating a seller's market, these policies resulted in high production costs, bad product quality, low economic efficiency, and little incentive for technological improvement. At the same time, by whetting the appetite for corruption in government agencies and increasing government expenditure, they led to large inflationary budget deficits (Baer and Samuelson 1977:2; Balassa 1981:9; Meier 1984:393).
- These policies impeded the development of external markets by restricting imports and discouraging exports. At the same time, they also could not provide 'the possibility of a strong expansion of the domestic market'

owing to the worsening of the maldistribution of income (Baer and Samuelson 1977:2). Furthermore, the limited markets did not allow for economies of scale, thus providing little chance for further growth.

All these economic distortions have led to relatively low rates of economic growth in countries which adopted the ISI strategy. What, then, should be a more appropriate strategy for developing countries? Most neoclassical economists argued that these countries should adopt outward-looking strategies, especially the strategy of export-oriented development (EOD) or export-promotion (EP). By EOD or EP, neoclassical economists meant the promotion of economic development through exports. Based upon free market principles and the comparative advantage hypothesis, the EOD strategy can lead to a better use of the price mechanism, a more open approach to international trade, a more efficient allocation of resources, a more favourable balance of payments, a higher rate of employment, a more equal distribution of income, a greater amount of domestic savings and foreign investments, a smaller amount of government expenditure and inflationary budget deficits, a lower rate of unit production costs, a better product quality, a greater incentive for improvement in technology, a better exploitation of economies of scale, a larger market, and an enhanced ability to compete in markets than can be achieved under the ISI strategy. In a word, the EOD strategy can overcome almost all the shortcomings of the ISI strategy, and can lead to a much more rapid rate of economic growth.

A case in support for the argument was said to be the NICs, especially the 'Four Small Dragons' in Southeast Asia—Hong Kong, Taiwan, South Korea and Singapore (Little 1970; 1979; Balassa 1971; 1978; 1981; 1982; Bhagwati 1978; Krueger 1978; 1983; Tyler 1981; Lal 1983; Meier 1984; World Bank 1983; 1987; 1991). According to neoclassical economists, the success of the EOD strategy in these

developing countries suggests the universal validity of free trade doctrine, and the failure of the structuralist approach. As Lal (1983:47–8) concluded:

> None of these more recent attempts to demolish the case for a liberal trading regime in the Third World is convincing. In the 1950s and 1960s, empirical evidence about the relative merits of import substitution and virtual free trade was absent...Since then, the evidence from a large number of countries in different parts of the Third World, covering virtually the whole of the post-Second World War period, strongly suggests that the old classical presumption in favour of free trade...is valid for both developing and developed countries... Though free trade is not a sufficient condition for growth, it may in many instances be a necessary one. Though it may not be the 'engine', international trade remains, in Kravis's splendid phrase, the 'handmaiden of growth'.

Notwithstanding the fierce critiques from neoclassical economists, the structuralist approaches can still shed light on some crucial issues with regard to international trade in particular, and development processes in general. One of the most important contributions is that they pointed out the disadvantages of participation in the global market economy from the viewpoint of developing countries, and that they tried to find a way to fundamentally change the situation. Structuralists' analyses of the inequality in the distribution of gains from trade, of the causes of the deterioration in the terms of trade, and, especially, of the development strategy appropriate for developing countries might be incorrect for one reason or another, but the alarming fact of the widening gap between the North and the South does cast some doubts upon the classical and neoclassical economists' trade theory, provides some justifications for the structuralist approaches, and asks for further investigation of development and underdevelopment (Haq 1979:116–7; Todaro 1989:598–9). [5] In this respect, the structuralist school can be said to be the first to represent the 'voice from the South'. Nonetheless, structuralists' positions still suffer from obvious biases.

One of the structuralists' biases relates to the assumption of a deterioration in the terms of trade. Structuralists' biases with regard to the evidence have been pointed out by neoclassical economists. Their interpretations of the causes of it have revealed enormous inconsistency and wide disagreements within the structuralist school itself. Neither are the main concern here.[6] What should be highlighted here is that even if the deterioration were proved true, what would still remain to be explained is its effects. Is it the single key mechanism which has caused the unequal distribution of gains from trade in particular and the unequal distribution of income in general, and, therefore, the single key mechanism which has widened the gap between the North and the South? Even if it does contribute to the maldistribution of gains and income, does that mean that international trade can only be a 'mechanism of international inequality', and cannot be an 'engine of growth' for developing countries? Structuralists' answers to these questions are not satisfactory.

Paradoxically enough, classical and neoclassical economists' analyses of comparative advantage and intraindustry trade can in a degree help here. As analysed previously, the assumption of comparative advantage itself implies the possibility of unequal distribution of gains from international trade between trading countries, and intraindustry trade can widen the gap between the North and the South. International trade can benefit all trading countries while enlarging inequality between them owing to unequal distribution of gains. It is therefore an 'engine of growth' as well as a 'mechanism of international inequality'. They are two sides of the same coin or two edges of the same sword. This understanding can help to overcome one-sidedness. On

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[5] As for the widening gap, see Chapter 3.

[6] As for structuralists' arguments about the deterioration, there has been evidence both in support of them (Sapsford 1985) and against them (for instance, Spraos 1980; Michaely 1982). Recent evidence seems to suggest that the commodity terms of trade of non-oil developing countries have deteriorated (for instance, see Todaro 1989), but a lot of empirical as well as theoretical work still should be done before we can reach a convincing conclusion.

One of the structuralists' biases relates to the assumption of a deterioration in the terms of trade. Structuralists' biases with regard to the evidence have been pointed out by neoclassical economists. Their interpretations of the causes of it have revealed enormous inconsistency and wide disagreements within the structuralist school itself. Neither are the main concern here.[6] What should be highlighted here is that even if the deterioration were proved true, what would still remain to be explained is its effects. Is it the single key mechanism which has caused the unequal distribution of gains from trade in particular and the unequal distribution of income in general, and, therefore, the single key mechanism which has widened the gap between the North and the South? Even if it does contribute to the maldistribution of gains and income, does that mean that international trade can only be a 'mechanism of international inequality', and cannot be an 'engine of growth' for developing countries? Structuralists' answers to these questions are not satisfactory.

Paradoxically enough, classical and neoclassical economists' analyses of comparative advantage and intraindustry trade can in a degree help here. As analysed previously, the assumption of comparative advantage itself implies the possibility of unequal distribution of gains from international trade between trading countries, and intraindustry trade can widen the gap between the North and the South. International trade can benefit all trading countries while enlarging inequality between them owing to unequal distribution of gains. It is therefore an 'engine of growth' as well as a 'mechanism of international inequality'. They are two sides of the same coin or two edges of the same sword. This understanding can help to overcome one-sidedness. On

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[6] As for structuralists' arguments about the deterioration, there has been evidence both in support of them (Sapsford 1985) and against them (for instance, Spraos 1980; Michaely 1982). Recent evidence seems to suggest that the commodity terms of trade of non-oil developing countries have deteriorated (for instance, see Todaro 1989), but a lot of empirical as well as theoretical work still should be done before we can reach a convincing conclusion.

As mentioned above, international trade can be both an 'engine of growth' and a 'mechanism of international inequality'. Developing countries can, therefore, use ISI strategy and government intervention to change unfavourable trade conditions and, therefore, eradicate one of the root causes of international inequality on the one hand, while using EOD strategy and 'free' market forces to promote rapid economic growth on the other hand. In practice, many developing countries which adopted ISI strategy and government intervention policies at an early stage changed to adopt EOD strategy and market-oriented reforms later on. Even the NICs, oft-mentioned by neoclassical economists in support of their EOD strategy and free market arguments, applied a combination of ISI and EOD strategies, and a combination of government intervention and 'free' market forces in different degrees and at different stages to the point that the distinctions between EOD and ISI have been somehow blurred (Todaro 1989:251–3; Tan 1992:40–4; Liang 1992:section 1). As Bradford (1986:122) noted: 'In the end, effective development relies on both market forces and public policies, and even on government intervention; it rests on both import substitution and export promotion!'

A third of the structuralists' biases lies in their narrow academic interests. Structuralists confined, like neoclassical economists, their interests mainly to the economic field, and gave little attention to social, political, and cultural factors. The international trade debate, therefore, was mainly conducted within the field of development economics. International trade is, however, not only an economic phenomenon. The lack of interdisciplinary studies was partly responsible for the structuralists', as well as the neoclassical economists', failure to satisfactorily address

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the international division of labour the dialectical role of international trade both as an 'engine of growth' and as a 'mechanism of international inequality'.

some crucial issues. As Prebisch (1984:184) noted in a summary of his development thinking:

> These and other questions dominated my mind and prompted new efforts to find consistent answers. For this purpose I went over my previous ideas very critically. Although it is true that there were some valid elements in them, they were very far from constituting a theoretical system. I arrived at the conclusion that to start building a system it was necessary to enlarge the scope beyond purely economic theory. Indeed, economic factors could not be isolated from the social structure. This was of paramount importance. It would be hopeless to seek a proper answer to these and other important questions within the narrow framework of a purely economic theory.

This need for an interdisciplinary approach was also admitted by some neoclassical economists and moderate economists (Bauer 1971: 104; Bradford 1986:123; Todaro 1989:13). As Todaro (1989:xxxv) noted:

> One simply cannot talk about economics for development without placing economic variables squarely in the context of sociopolitical systems and institutional realities. To ignore 'noneconomic' factors in an analysis of so-called economic problems such as poverty, unemployment, and inequality, both within and between nations, would do students a great disservice.

This trend towards interdisciplinary studies later became one of the dominant characteristics in another debate in the field of development studies: the modernisation debate, to which attention now turns.

Modernisation debate

The modernisation debate mainly related to the question of the desirability and undesirability, and the necessity and evitability of participation in the global market economy. Its origins may be traced back far in the past, but it intensified only in the postwar period in the debate between proponents of the modernisation/diffusion paradigm and proponents of the dependency/world-system paradigm. The debate focused on whether developing countries should open up to the forces of modernisation and therefore take part in the global market economy, whether this

benefits these countries and therefore is desirable, and whether this is necessitated by an irreversible process of progress and therefore is inevitable. The modernisation/diffusion paradigm gave affirmative answers to these questions, and dominated mainstream development thinking in the early period of the debate and in more recent years (Roxborough 1988:756; Hettne 1990:60). It thus deserves close scrutiny at the outset. Subsequently, we will turn to the radical challenge to it from proponents of the dependency/world-system paradigm.

Open up to forces of modernisation

The modernisation/diffusion paradigm emerged in the West in the 1950s as a result of a convergence of two theoretical trends: social evolutionism and social functionalism (Tipps 1973:200; So 1990:18). Social evolutionism, born in the early nineteenth century when European countries were experiencing rapid social change primarily as a result of the Industrial Revolution, tended to consider development as a unidirectional evolutionary process. Societies would move from a backward, irrational, and barbarian state to a progressive, rational, and civilised state as represented by contemporary capitalist Europe. Social functionalism, founded by Parsons in the middle of the twentieth century when development experiences of individual countries demonstrated huge complexities in the process of increased globalisation, examined systematic changes and used universal 'pattern variables' to interpret them (Eisenstadt 1973:5–11). Unidirectional evolution and universal pattern variables were two of the prominent characteristics of the early modernisation/diffusion paradigm.

From the 1950s onward, a number of social scientists from various disciplines (economics, sociology, politics, psychology, history) began to analyse social

development in general, and the development of developing countries in particular, in terms of social evolutionism and social functionalism. Social development in general was regarded as a process which involves, according to Dore (1977:9), 'the movement of a society from Stage A to Stage B when Stage B is judged to be better than Stage A by some criterion of value which the speaker accepts.' Stage B (modern society), represented in the modern world by more developed areas, exhibited some pattern variables or characteristics which were quite different from, and opposite to, those of Stage A (traditional society) represented by underdeveloped areas. The development of developing countries in particular was to be achieved 'through the elimination of "underdevelopment" characteristics (some of which are listed in De Souza and Porter 1974:15–60) and the acquisition of the characteristics of more developed areas' (Browett 1980:58–60). These social scientists thus initiated the modernisation/diffusion paradigm. The most prominent proponents of this paradigm were, among others, Hoselitz (1953; 1964), Levy (1966), Lerner (1958), McClelland (1961; 1964), Rostow (1964), Inkeless (1964), Lipset (1963), and Moore and Feldman (1960). There certainly were some theoretical and methodological differences within this group, and these differences were even conceptualised as distinctive models within the paradigm (Nash 1963:5; Browett 1980:60), but fundamentally they shared the following tenets.

They all believed that the transition from tradition to modernity is a desirable process because it involves the replacement of traditional social characteristics by modern ones, and the latter are superior to the former. The dichotomy between modern and traditional societies was characterised in terms of industrial/agrarian, urban/rural, commercialisation/self-sufficiency, differentiated structure/rigid structure, democracy/dictatorship, rapid development of science and

technology/ignorance and benightedness, literacy/illiteracy, legal/arbitrary, secular/sacred, affective-neutral/affective, universalistic/particularistic, self-orientation/collective-orientation, achievement/ascription, functionally specific/functionally diffused, and rational/irrational (Hoselitz 1953,1964; Parsons 1951; Black 1966; Eisenstadt 1973; So 1990). Thus, modernity represents 'the very embodiment of virtue and progress', and therefore is desirable, whilst tradition represents 'merely a barrier to its realisation', and therefore is undesirable. Modernisation is the process by which the former triumphs over the latter (Tipps 1973:208). Although modernisation may have some undesirable side-effects in the short run, its overall results are desirable in the long run.

They also believed that modernisation is an inevitable process. On the one hand, according to social evolutionism, the movement from a relatively backward to a relatively progressive society is an historical tendency which no society (no matter how backward and closed-up) can resist. The forces of modernisation are bound to overcome all barriers and eventually diffuse from 'relatively modernised' to 'relatively nonmodernised' areas (Levy 1966:741–8). On the other hand, according to social functionalism, modernisation is a systematic transformation process which, once started in one sphere of social life, will inevitably produce comparable changes in other spheres (Hermassi 1978:239–57; So 1990:34–5). Although there may be resistance to this process in some periods of time, in some spheres of human activity, and in some places, it will eventually be overcome by the forces of modernisation.

On the basis of these beliefs, it was suggested that it is both desirable and inevitable for developing countries to open up to the forces of modernisation represented by Western capitalism, and to participate in the global market economy characterised by capitalist free competition (Hoogvelt 1982:116–7). In order to

facilitate this process, developing countries 'must be organised, or be capable of being organised, along commercial, capitalist lines so that its structure is roughly isomorphic with that of more developed areas' (Browett 1980:65). Traditional societies must prepare themselves 'more effectively to receive, accept and creatively elaborate upon external injections of development, democracy and modernity' (Soja 1976:15). The development policies which follow include, among others, (1) the promotion of production according to comparative advantage; (2) the introduction of Western aid, planning, and capital; and (3) the establishment of bridge-heads as enclaves of modernisation (Sunkel 1977:10; Foster-Carter 1973:15–6; Browett 1980:66). In these ways, developing countries can eradicate underdevelopment and catch up with developed countries.

The arguments of the proponents of the modernisation/diffusion paradigm were based upon the assumption of convergence. It was argued that modern societies are similar whilst traditional societies are differentiated. Traditional societies are extremely diverse, ranging from 'tribal' to highly 'sophisticated' organisational structures. In contrast, modern societies are similar and homogeneous, and they do not 'share the diversity of the traditional, insofar as the particular functions characteristic of modernity tend to be common to all mankind' (Black 1966:24). It follows that diversity in the early stages of the modernisation process should diminish or disappear over time as traditional societies are gradually integrated into the modern world, achieve the social functions characteristic of more developed areas, and become 'progressively similar in their sociocultural correlates' (Goldthorpe 1971:263–8; Eisenstadt 1973:17). As Levy (1967:207) noted: 'As time goes on, they and we will increasingly resemble one another...because the patterns of modernisation are such that the more highly modernised societies become, the more they resemble

one another'. Thus, at the endstage of modernisation, all areas of the world will have similar social structures and levels of development. This process of convergence is so overwhelming that there will emerge a 'world state' (Black 1966:155–74).

It was also argued that modernisation is 'a universal social solvent' (Levy 1966:741). The members of relatively modernised societies will eventually come into contact with members of relatively nonmodernised societies, and such contact is bound to generate a 'single general type of social change', that is, the social structures of relatively nonmodernised societies will dissolve and be transformed in the direction of relatively modernised societies. This is because

> Once modernisation has been developed to the level characteristic of relatively modernised societies, those structures will be disseminated. The people who have become accustomed to acting in terms of them will be motivated to disseminate them whether from good or bad motives. The members of societies in terms of which these structures have not yet developed will be motivated to accept some of these structures or some of their results once they are aware of them—whether wisely or unwisely (Levy 1966:747).

No matter whether such diffusion is by force or not, it is both inevitable and wholesale. By wholesale, it is meant that

> The structures of modernisation are such that they can never simply be imported piecemeal. That is to say, the members of relatively nonmodernised societies—even assuming they are not subjected to any coercion by others—can never simply take over what they want or what fits in well with the rest of their social structures and leave the rest (Levy 1966:748).

Not only is imperialism somehow justified, but also modernisation is regarded as a process of complete acculturation (Black 1966; Levy 1966; Frank 1967).

It was further argued that modernisation is a process of westernisation. Since relatively modernised societies are mostly Western countries and relatively nonmodernised societies are mostly non-Western countries, modernisation is actually the adoption of the structures of Western countries by non-Western countries. In the acculturation process, non-Western countries become similar to Western countries in

all aspects of human activity—intellectual, political, economic, social, and psychological (Black 1966:25–36). The hypothesis of convergence in the modernisation/diffusion paradigm implies, therefore, the superiority of westernisation. As Tipps (1973:206) pointed out, 'the assumption upon which much of modernisation theory is based is that, in the words of one author (Shils 1965: 10), "Modern means being Western without the onus of dependence on the West"' (also see Browett 1980; Hettne 1990; So 1990).

The modernisation/diffusion paradigm and its key assumption of convergence dominated mainstream development thinking until the mid 1960s when it came to a crisis. The major factors responsible for the crisis were, as Browett (1980:67) noted:

> the limited economic growth recorded by less developed areas, the failure of nations which apparently were not constrained by small market size or specialised economic bases to experience rapid economic growth, the persistence of extreme poverty and material deprivation even in these areas which did achieve some aggregate economic growth (Griffin 1977), and the widening of the development gap between more developed and less developed areas (Seers 1972:33–4). Such was the extent of the deterioration in economic and social conditions and in the potential opportunities for advancement of many of those living in less developed areas that the concept of triage came to be applied to a category of nations where the severity and magnitude of non-development or underdevelopment was the most acute—the fourth world, those beyond help or hope (Knight and Wilcox 1976:1). At the same time, a number of other factors—the successful Chinese and Cuban revolutions, the Vietnam war, the 'development disasters' resulting from breakdowns in progress towards modernisation which occurred in Indonesia, Pakistan, Burma, Nigeria and the Sudan (Eisenstadt 1964), and the internal, especially racial, conflict in the United States (Foster-Carter 1973:17–8; Lall 1976:726)—contributed to a further questioning of the diffusionist paradigm policies and to disenchantment with western development assistance (Commission on International Development: 1969; Holsti 1975; Balogh 1977).

All these factors showed a trend toward divergence, not toward convergence, so the modernisation/diffusion paradigm and its hypothesis of convergence were challenged. The criticism came mainly from two sources: radical critics from dependency/world-

system paradigm and moderate critics from within the modernisation/diffusion paradigm. The latter is discussed here, and the former is left to the next section.

Those who wanted to reform and revise early modernisation thinking first questioned the absolute dichotomy between tradition and modernity. It was argued that tradition and modernity are not mutually exclusive. Some pattern variables or characteristics of traditional society can still exist in modern society and some pattern variables or characteristics of modern society have been present in traditional society for a very long period of time. Furthermore, there is not a zero-sum relationship between the two. On the one hand, in the process of modernisation, modern variables may 'supplement' but not 'supplant' traditional ones. Some of them are 'simply added to', 'give new life' to, and therefore 'strengthen' tradition (Huntington 1971:195–6). On the other hand, in the process of modernisation, traditional variables may help to promote rather than impede the development of modernity. Traditional family relationships and traditional religious beliefs, for instance, helped to promote the modernisation process in some countries (see, for instance, Wong 1988; Davis 1987). Tradition and modernity do not, therefore, necessarily repel one another. Their relationship in the process of modernisation is one of 'mutual interpenetration and transformation' (Bendix 1967:316–26; Eisenstadt 1968:40–52; Huntington 1971:295–6; Lauer 1971:885–6; Tipps 1973:214).

Second, they questioned the systemic character of modernisation. It was argued that the pattern variables of modernity do not necessarily form a 'package', so that modernisation in one sphere does not necessarily bring about corresponding changes in other spheres. On the contrary, the pattern variables of modernity may be 'unbundled' and absorbed selectively and piecemeal. For example, the adoption of modern medicine, modern means of communication (such as radio, TV, and film),

and modern weapons in the process of modernisation do not necessarily lead a country to the eventual acquisition of the entire 'package' of modernity. It is very possible that, as Tipps (1973:215) noted,

> The introduction of modern medicine may only compound poverty by increasing population pressures, the transistor radio may be employed merely to reinforce traditional values, and a technologically sophisticated military may be placed in the service of the most reactionary of regimes. Thus, such selective modernisation may only strengthen traditional institutions and values, and rapid social change in one sphere may serve only to inhibit change in others.

Modernisation is not, therefore, a simple process with only systemic transformation, but a very complex process with multidimensional aspects of change.

Third, they criticised the assertion of modernisation as westernisation. It was argued that this notion arose simply because the proponents of the modernisation/diffusion paradigm, mostly Westerners, simply believed that the Western society where they were born and raised is the best in the world, and that the rest of the world should follow the same or a similar path to modernity (Tipps 1973:207; So 1990:54). This ethnocentric notion is untenable for two main reasons. On the one hand, due to the huge difference in the social structures and values in traditional societies, in the timing of their adoption of modernisation, in the extent to which they come into contact with the outside world, and in the nature of this contact, traditional societies are unlikely to duplicate or reproduce Western institutional patterns in their modernisation processes. They are, therefore, bound to follow paths to modernity that are different from those of the West (Bendix 1967: 27–35; Huntington 1971:298; Lauer 1971:884–6; Tipps 1973:215). Thus, not only the starting points (traditional societies) are diverse, but also the end stages (modern societies) 'comprise a variety of social structural types', not just one Western type (Roxborough 1988:756). On the other hand, due to the lack of capability for self-

sustaining development, and the rigid institutional structures which are unable to deal with the problems generated in rapid social transformations, the process of modernisation in traditional societies, even with the aid from the West, may be interrupted or reversed—the 'breakdowns of modernisation' (Spingler 1966:332; Eisenstadt 1973:49). The traditional societies which suffer from the modernisation breakdowns are certainly unlikely to be westernised.

These criticisms can be considered as a current of revisionism within the modernisation/diffusion paradigm, for they were 'designed to retain the idea of modernisation in the context of some new, more empirically grounded framework' (Tipps 1973:216). The overall superiority of modernity to tradition and the necessity for modernisation implied in the convergence assumption remained largely untouched. It was still believed that the various paths to modernity and the breakdowns in the modernisation process are only temporary deviations from the normal direction, and that transitional societies experiencing such deviations will eventually return to the 'normal' track of modernisation (Hettne 1990:64). Thus, although there might be an 'impressive range of variation' of social structures in the end stage of modernisation, the unique nature characteristic of this stage (modernity) still justifies the assumption of convergence (Roxborough 1988:756).

It was also believed that the ethnocentrism inherent in the assumption of convergence could be avoided by universalising the concept of modernisation even further so as to define it as 'the process of rationalisation of social behaviour and social organisation' (Moore 1977:33), or 'the growth in capacity to apply tested knowledge to all branches of production' (Nash 1984:6), or 'the increase in the capacity for social transformation' (Roxborough 1988:756). This effort is essentially, as Hettne (1990:73) noted, a move toward 'modernisation without westernisation', in

which arguments for the desirability and inevitability of opening up to the forces of modernisation (or participation in the global market economy) and associated policy prescriptions were still regarded as tenable. The phenomenon of 'modernisation breakdowns' does not invalidate them, it only indicates that the aid programmes and development policies 'have not been given enough time to prove themselves' in the countries concerned (Browett 1980:68). Nevertheless, a number of outstanding problems remained unsolved by the revisionist criticism.

The first problem is to define the basic concepts related to modernisation appropriately. As shown above, there were wide differences regarding the definition of tradition, modernity, and modernisation. No matter whether one 'key variable' or several 'pattern variables' were used to define these concepts, what remained common was that, explicitly or implicitly, capitalism and its concomitant economic, social, political, intellectual, and cultural phenomena were considered as the basic characteristic of modern society. Even those who tried to use some 'universal' terms in the definition of modernisation often could not help thinking along these lines. As Desai (1971:99) pointed out, for modernisation theorists,

> The modernisation concept is basically meant to describe the processes and system of transformation that are taking place in societies which have remained within the broad framework of the capitalist mode of production, sometimes described as 'free enterprise economies' or 'free economies'. A variety of terms have now been coined to avoid the stigma attached to the words 'capitalist societies'. 'Open society', 'particularly society', 'free society', 'active society', 'achieving society', 'secular society', etc. have (been) encouraged to describe these societies, highlighting one or the other process in them. Very few scholars acknowledge that the capitalist mode of production is the common substratum underlying these variously described societies.

This line of thinking survived the moderate revisionist criticism. As late as the late 1980s, for instance, Roxborough (1988:756), while trying to 'universalise' modernisation concepts, still suggested to use of the notion of a move from

precapitalist or premodern societies to capitalist or modern societies to 'dispenses with many of the objections that have rightly been leveled at the tradition–modernity dichotomy'. The idea that modern equals capitalist, tradition equals precapitalist, and modernisation equals the transition from precapitalism to capitalism remained deeply rooted in the modernisation/diffusion paradigm. Caught in the same trap, as analysed below, were its radical opponents—the dependency/world-system theorists. It should, however, be kept in mind that the conception of capitalism as a social system different from all others originated in a historically specific period full of intensified class struggle between capitalists and proletarians. The rapid and radical worldwide changes in the late twentieth century challenge the basic conception of the modernisation/diffusion paradigm, and require a broader and less ideologically biased framework of analysis.

It seems that one of the approaches to be considered is one which looks at the entire process of global social development from the ancient until the present as a 'big transition' from societies based upon a self-sufficient economy to those based upon a market economy. 'Modernity' is defined in terms of the economic, social, political, intellectual and cultural characteristics associated with the market economy, 'tradition' is defined in terms of those characteristics associated with a self-sufficient economy, and 'modernisation' is the transition from the latter to the former. That the market economy is the core of modernity has been admitted by some scholars, but most equated it with capitalist 'free economy'. However, the market economy originated much earlier than capitalism. Although there are many overlaps, they are not the same. In addition, the market economy is increasingly covering all areas of the world, whether they are 'capitalist', 'socialist', 'feudalist', 'tribal', or whatever!

The second outstanding problem relates to the assumed desirability and inevitability of modernisation, or, since it was equated with capitalism, the desirability and inevitability of worldwide capitalist development. Clearly, the question of desirability and inevitability of modernisation could be better addressed from the viewpoint of the full development and globalisation of market economy than from that of the full development and globalisation of capitalism. It seems to me, however, that at least two theoretical difficulties still remain to be overcome. On the one hand, even though the inevitability of the development of the market economy was discussed as early as the eighteenth century by Smith (1776) in the light of the inevitable expansion of the division of labour and the propensity in human nature for exchanging one thing for another, social scientists have not yet found satisfactory theories which can combine sophisticated interdisciplinary analyses with updated evidence of increasing integration into the global market economy. On the other hand, the assessment of the desirability of modernisation should be based upon an analysis of the characteristics of modern society. Since the analyses to date have mainly been undertaken with ideological biases, a huge amount of work needs to be done before social scientists can reach a clear understanding of theos characteristics and, therefore, make an appropriate evaluation of the desirability of modernisation. The work involves not only distinguishing characteristics of modern societies based upon a market economy from those of traditional societies based upon a self-sufficient economy, which was pioneered by some scholars (see, for instance, Tachau 1972:2–3), but also distinguishing characteristics of such modern societies from those of capitalism and those of socialism, which is still largely a plot of 'virgin land'.

The third outstanding problem concerns the failure to address the widening gap between developed and developing countries in the modernisation process.

Accumulating evidence of the widening gap is directly contradictory to the key assumption of convergence and, therefore, points to a vital weakness in the modernisation/diffusion paradigm. As a leading modernisation theorist (Nash 1977:16) admitted:

> The intellectual formulations of the processes of modernisation are drawing farther and farther away from the historical and processual facts in the transitional nations of Africa, Asia, and Latin America. There is not only a widening gap between 'the rich and the poor' in terms of share of the world's product; there is a widening gap between the intellectual apprehension of the process and the way the process is unfolding in the contemporary world.

The gap between theory and reality cannot be narrowed and the gap between 'the rich and the poor' cannot be explained as long as proponents of the modernisation/diffusion paradigm insist on a narrow and ideologically biased notion of modernisation, which equates modernity to capitalism, and which assumes an equalisation tendency in the capitalist modernisation process. It seems to me that the first gap can be narrowed and the second may be better explained if modernisation is equated with the full development of the market economy, and if both development and inequality are allowed for in the same modernisation process. As shown in the analyses of the international trade debate, international trade and the globalisation of the market economy can be both an 'engine of growth' and a 'mechanism of international inequality'. Modernisation as defined above can, therefore, lead to 'convergence' in the sense that all areas involved in the process develop in the direction of market economy and are increasingly integrated into the global market economy, not necessarily in the sense that all areas involved in the process equalise in their economic, social, political, intellectual and cultural levels of development according to criterion derived from the experience of already-developed areas. In this way, the question of desirability and undesirability, and necessity and inevitability of modernisation can be better addressed. That is, although some developing countries

might modernise themselves along ways other than capitalism, all of them cannot avoid being integrated into the global market economy. This inevitable globalisation process can, due to the dual roles of international trade, bring about both desirable and undesirable results to individual countries. Accumulating evidence of the parallel developments of increased integration into the global market economy and a widening gap between developed and developing countries seems to confirm this argument. Before providing evidence, however, we should take into account the radical criticisms of the modernisation/diffusion paradigm by proponents of the dependency/world system paradigm.

Polarised development: de-linking versus diffusion

As radical critics of the modernisation/diffusion paradigm, proponents of the dependency/world-system paradigm argued against the desirability and inevitability of participation in the global market economy from the viewpoint of underdeveloped countries. The dependency/world-system paradigm, originating in Latin America in the late 1960s, became very influential in development studies from the 1970s onwards. It drew its inspirations from three major intellectual sources: structuralism, neo-Marxism, and the French Annale school. Specifically, it absorbed the idea of unequal exchange and distribution between the core and the peripheral countries from structuralism, the view of socialism as a timely substitute for capitalism from neo-Marxism, and the perspective of global history in the long-term from the French Annale school. Its proponents included not only the Latin American scholars, but also scholars from other parts of the world, especially from Africa and North America. Although there were diverging opinions within this group the works of the three most prominent scholars in this group—Frank, Wallerstein, and Amin—were so closely

interconnected and similar that they could be said to constitute a distinct dependency/world-system paradigm (Browett 1982:145; 1985:790; Brewer 1990:162–3).

Proponents of this paradigm were clearly characterised by their overwhelming dissatisfaction with modernisation/diffusion theorists' arguments about the modernisation process in developing countries and the development strategies that these countries should adopt (Wallerstein 1975:7–29; 1979:132–7; Amin 1990a:x–xi; 1990b:1; Frank 1969a:21–78). They argued that the modernisation/diffusion paradigm is empirically inaccurate, theoretically inadequate, and politically ineffective because it is based upon a dualism which 'fails to adhere to the standards of holism, structuralism, and historicity' (Frank 1969: 63). The world is divided into two parts—modern and traditional societies, and the lack of modern characteristics is supposed to have led traditional societies to lag behind the modern ones. This approach deals with each of the two parts separately and, therefore, neglects the whole world system which holds them together, its structure, and its historical development. The two parts should be, according to the dependency/world-system theorists, considered and analysed within a single capitalist world system. The underdevelopment in developing countries is not the result of the absence of certain pattern variables characteristic of developed countries, but rather the result of the presence of such pattern variables in the modern capitalist world system and their diffusion from the centre of the system (Western countries) to the periphery (non-Western countries). In this process of capitalist globalisation or capitalist expansion, Western countries have developed or modernised at the expense of non-Western countries. It is, therefore, the very functioning of the capitalist world system and the very process of its historical evolution that has led to development in Western

countries on the one hand, and underdevelopment in non-Western countries on the other. As Frank (1969b:9) asserted:

> Economic development and underdevelopment are not just relative and quantitative, in that one represents more economic development than the other; economic development and underdevelopment are relational and qualitative, in that each is structurally different from, yet caused by its relation with, the other. Yet development and underdevelopment are the same in that they are the product of a single, but dialectically contradictory, economic structure and process of capitalism. Thus they cannot be viewed as the products of supposedly different economic structures or systems, or of supposed differences in stages of economic growth achieved within the same system. One and the same historical process of the expansion and development of capitalism throughout the world has simultaneously generated—and continues to generate—both economic development and structural underdevelopment.

The integration of non-Western countries into the capitalist world system or non-Western countries' participation in the global market economy is, therefore, undesirable to these countries, and should be avoided (Hout 1993:47–8).

It is undesirable in the sense that this globalisation and integration process has not, as modernisation/diffusion theorists supposed, led to modernity, development, and wealth in non-Western countries through the diffusion of Western modern pattern variables. On the contrary, it built up many impediments to the progress of these countries through the diffusion. The diffusion of Western capital enabled, for instance, Western countries to control the production in non-Western countries and, therefore, 'interposed a whole series of obstacles to their development' (Frank 1969a:52). The diffusion of Western technology only served 'as the basis of the capitalist metropolis's monopoly control over its underdeveloped economic colonies' (Frank 1969a:54). The diffusion of Western institutions, especially liberalism in its economic, political and social forms, only served the interests of the diffusing countries and the dominant groups in the diffused non-Western countries to the point that it thereby provided 'economic and political support not for changing but for

maintaining and reinforcing the structure of the economic, political, and social *status quo*', and restricted 'the development of the economic, political, and social whole' in non-Western countries (Frank 1969a:60–1). In a word, integration into the capitalist world system or participation in the global market economy has brought about tremendously harmful and undesirable results for non-Western countries. As Wallerstein (1991:101) noted, 'the involvement of various parts of the world as peripheral zones of the capitalist world-economy has not been historically beneficial to their populations.'

Participation in the global market economy should be avoided in the sense that since the centuries-long integration into the capitalist world system has not led to development and prosperity but to underdevelopment and poverty in non-Western countries, the only way left for these countries is to 'de-link' from and destroy the capitalist world system, rather than, as modernisation/diffusion theorists suggested, to engage in modernisation and transformation within the capitalist world system. As Wallerstein (1979:133) observed: 'we do not live in a modernising world but in a capitalist world. What makes this world tick is not the need for achievement but the need for profit. The problem for oppressed strata is not how to communicate within this world but how to overthrow it.' This de-linking strategy should be in the direction of socialism. Although there were different understandings and opinions among the proponents of the dependency/world-system paradigm about the 'de-linking' strategy, and some of them even questioned its validity on some occasions, the differences were more in appearance than in substance and they have been overstated (Hettne 1990:147). Indeed, the differences existed only in the sense that some (Amin, for instance) believed that socialism can succeed in a single country and, therefore, can be a practical strategy for individual developing countries, whilst

others (Wallerstein, for example) believed that socialism can only succeed in a worldwide scale to replace the worldwide capitalism and, therefore, cannot be a practical and effective strategy for individual developing countries (Amin, Arrighi, Frank, and Wallerstein 1982:10, 241–3). That is, some advocated 'individual de-linking' whilst others argued for 'systemic de-linking'. Despite the differences, they all agreed that developing countries cannot achieve development within the capitalist world system. Such development can only occur either when these countries sever their ties with the capitalist world system or when this system comes to an end in the future.

Many assumptions underlay the dependency/world system theorists' arguments against the desirability and inevitability of integration into the capitalist world system and participation in the global market economy, but the key assumption is doubtless that of divergence. It was assumed that the general tendency in the modern capitalist world system has not been, as modernisation/diffusion theorists supposed, toward convergence, but toward divergence. The evolution of the modern capitalist world system polarised the world basically into two parts—highly developed areas ('core', 'centre', 'metropolitan') and extremely underdeveloped areas ('periphery', 'satellite'), with a so-called 'semiperiphery' in between. The polarisation existed not only internationally but also domestically, domestically in the sense that there emerged a widening regional gap on the one hand and increasing inequalities in the distribution of income on the other. The rich regions and the rich classes in underdeveloped countries joined the group of metropoles, and exploited poor regions and poor classes (Frank 1969: 6, 61). As a result of this polarised development, the two parts of the world have not become similar to each other, but

become increasingly differentiated in their levels of development, their social structures and characteristics.

This polarisation trend started right at the beginning of the integration process, and became more and more alarming as time went on. By the end of the nineteenth century, it had arrived at the stage that the difference between the developed and the underdeveloped areas was no longer quantitative, but qualitative in the sense that it became structurally 'insurmountable'. That is, if there did exist possibilities for some underdeveloped countries to join the ranks of developed ones before the end of the nineteenth century, the 'extent of world domination of core capital was already such that it precluded this possibility from then on', or left only very 'limited possibilities of transformation within the capitalist world-economy' (Amin, Arrighi, Frank, and Wallerstein 1982:182; Wallerstein 1979:67). The tendency toward divergence and polarisation 'is not an anomaly but a continuing basic mechanism of the operation of the world-economy' (Wallerstein 1979:73; Hout 1993:115). In other words, it is the inevitable result of the development of the capitalist world system.

This is because the capitalist world system is characterised by the ceaseless accumulation of capital. The accumulation is achieved through capitalists' efforts to maximise profits. The desire for profits drives capitalists to search for new markets and new investment sites so that they can gain increasing surplus through the exploitation of an increasing number of people. In this way, the world capitalist centre has incorporated other parts of the world into the exploitative surplus-transfer network. The function of the periphery of the capitalist world system is to provide surplus for the centre.

The surplus-transfer network experienced several phases in the centuries-long process of capitalist world system development, of which three are most important:

mercantilist, industrial capitalist, and imperialist/neoimperialist. Accordingly, the exploitation of the periphery by the centre took different forms in these phases. In the mercantilist phase, the exploitation was trade-induced, though direct plunder was also an important means of surplus-transfer since the centre had little to offer in exchange with the periphery at that time (Amin 1974:40–1; Frank 1979:17; Hout 1993:85). In the industrial capitalist phase, the Industrial Revolution promoted 'international specialisation between industrial and agricultural countries' and enlarged the 'technological gap' between these countries, so the centre exploited the periphery mainly through the export of manufactured goods in exchange for primary goods (Amin 1974:417; Frank 1983:36–8; Hout 1993:65–85). The imperialist/neoimperialist phase witnessed, besides the inherited forms, two new forms of exploitation—increased investments by the centre (mainly multinational firms) in the periphery and increased financial transactions between the centre and the periphery. These new forms of exploitation resulted in high rates of profit for the centre and tremendous economic and financial problems for the periphery (Amin 1972:518; 1980:134–7; Frank 1969b: 298–303; 1979a:194; 1983:41–4; 1984:77–81; Hout 1993:65–88).

Despite changes in the forms of exploitation, trade based upon unequal exchange and unequal specialisation has been, according to the dependency/world-system theorists, the key mechanism by which surplus has been transferred from the periphery to the centre, and therefore has played a crucial role in the polarisation process. It is here that the proponents of dependency/world-system paradigm essentially accepted Emmanuel's unequal exchange theorem. They argued, following Emmanuel, that the different wage levels between the centre and the periphery and the international immobility of labour result in unequal exchange between the centre and the periphery and the exploitation of the latter by the former—products of high

wage and high price in the former are exchanged with products of low wage and low price in the latter whilst the value of the products (in terms of labour cost) in the two areas remains the same. Unequal exchange and exploitation occur, therefore, no matter what kind of products these two areas produce and exchange with one another. As Wallerstein (1979:71) noted:

> If we think of the exchange between the core and the periphery of a capitalist system being that between high-wage products and low-wage products, there then results an 'unequal exchange' in Emmanuel's conception, in which a peripheral worker needs to work many hours, at a given level of productivity, to obtain a product produced by a worker in a core country in one hour. And vice versa. Such a system is *necessary* for the expansion of a world market if the primary consideration is *profit*. Without *unequal* exchange, it would not be *profitable* to expand the size of the division of labour. And without such an expansion, it would not be profitable to maintain a capitalist world-economy...The point is that we should not identify any particular product with a structural sector of the world-economy, but rather observe the wage patterns and margins of profit of particular products at particular moments of time to understand who does what in the system.

A similar line of argument can also be found in the writings of other dependency/world-system theorists (see, for instance, Frank 1979:101–10; Amin 1976:138–54; 1974:chapters 1 and 2). They tended, however, to consider wage level not as an independent variable, as Emmanuel thought, but as a variable which is closely related to, and determined by, productive forces in the capitalist world system (Frank 1979,:109–10; Amin 1976:151; Brewer 1990:184).

The centuries-long exploitation of the periphery by the centre had contrasting effects on the two zones of the capitalist world system. The centre accumulated capital through the global surplus-transfer, and, therefore, not only built up an autocentric economy with its own dynamic but also enjoyed an absolute domination over the periphery. By contrast, the periphery was deprived of its potential capital through the global surplus-transfer and, therefore, not only lost the dynamics of its autonomous development but also became dependent on the centre. As a result of the

dependence, the periphery was trapped in a situation of underdevelopment whose basic structural features are, in the words of Amin (1976:201–2),

> (1) the extreme unevenness that is typical of the distribution of productivity in the periphery, and in the system of prices transmitted to it from the centre, which results from the distinctive nature of the peripheral formations and largely dictates the structure of the distribution of income in these formations; (2) the disarticulation due to the adjustment of the orientation of production in the periphery to the needs of the centre, which prevents the transmission of the benefits of economic progress from the poles of development to the economy as a whole; and (3) economic domination by the centre, which is expressed in the forms of international specialisation (the structures of world trade in which the centre shapes the periphery in accordance with its own needs) and in the dependence of the structures whereby growth in the periphery is financed (the dynamic of the accumulation of foreign capital).

Such a structurally 'extroverted', 'dependent', and 'underdeveloped' periphery is beyond any hope of development. Even if economic growth occurs in some peripheral countries (the NICs, for example) in some periods of capitalist world system expansion, it is only dependent development in the sense that it reproduces underdevelopment structures and, therefore, is bound to be blocked later on. As long as the capitalist world system exists, the periphery cannot break through this 'vicious cycle' of underdevelopment and, therefore, is doomed to lag further and further behind the centre as time goes on. Thus, spatial divergence and polarisation is a perpetual, everlasting, and increasingly alarming phenomenon in the capitalist world system (Amin 1976:9; 1990a:xi; Wallerstein 1975:19; Frank 1984:217–9; Amin, Arrighi, Frank, and Wallerstein 1982:25–6).

The dependency/world-system paradigm and its key assumption of divergence 'enjoyed wide support among critical social theorists and development planners in the 1960s and 1970s, and in a sense still 'remains a leading source of innovative ideas and historical research' (Peet 1991:52). The power of this paradigm lay, it was said, in that it contained 'devastating criticism of the Eurocentric modernisation paradigm',

provided 'an alternative intellectual perspective', functioned as 'a catalyst in the subsequent development of development theory', stimulated 'the discussion on development strategies both on a national level and on an international one', and solved 'some important problems that were left unsolved by its main predecessors and competitors' (Hettne 1990:82–97; Hout 1993:169; also see Addo 1984:4–11). The main contribution of the paradigm to development studies was, it seems to me, that it pointed to, from a holistic worldview, the tendency toward divergence in the modern world and some undesirable consequences of integration into the global market economy. The dependency/world-system paradigm suffers, however, from a number of crucial weaknesses and, therefore, is vulnerable to criticism.

From the 1970s onwards, the dependency/world-system paradigm has been the subject of a great deal of criticism. The criticism came, as Browett (1982:145) observed, 'both from the right, which seeks to reformulate and refurbish the diffusionist paradigm in the light of the critiques which have been made against it, and from the left, which now regards the dependency paradigm as constituting an inadequate basis for the analysis of world capitalism'. In spite of the differences between the 'right' and 'left' critics or, in the words of Larrain (1989:175), between 'non-Marxist' and 'Marxist' critics, the criticism has focused on the following problems.

First, it was argued that the dependency/world-system paradigm, due to 'its origins as a critique of orthodox development theory', fell into a 'mirror-image' pitfall (Browett 1981:16). As a result, the dependency/world-system paradigm replicated the errors of modernisation/diffusion paradigm in at least four aspects.

- It was trapped in the same conception of two opposite poles. As Leys (1977:95) noted, 'it is not really an accident that these simplistic pairings,

developed/underdeveloped, centre/periphery, dominant/dependent resemble those of bourgeois development theory (tradition/modern, rich/poor, advanced/backward, etc.); they are basically polemical *inversions* of them'.

- It simply put the arguments of modernisation/diffusion paradigm upside down and, therefore, went to extremes in the opposite direction (Larrain 1989:189). As opposed to the modernisation/diffusion theorists' argument that the diffusion of modern variables into traditional societies can lead to development in these societies, for example, the dependency/world-system theorists argued that such a diffusion can only lead to underdevelopment in these societies. Thus, as Villamil (1979:4) pointed out, 'what had been considered pluses in the traditional approaches, became minuses when looked at through dependence "glasses"...'
- It relied, as the modernisation/diffusion paradigm did, upon 'correlative and circular' arguments rather than causative analyses and, therefore, was 'vitiated by tautological reasoning' (Browett 1981:18; Larrain 1989:188–9). In the dependency/world-system paradigm, the logic of argument was that 'dependent countries are those which lack the capacity for autonomous growth and they lack this because their structures are dependent ones' (O'Brien 1975:24), or that 'less developed countries...are poor because they are dependent, and any characteristics that they display signify dependence' (Lall 1975:800). Thus, just as the modernisation/diffusion theorists associated underdevelopment with the absence of modern variables and then believed they had explained it, the dependency/world-

system theorists associated underdevelopment with dependency and then thought they had found the explanation for its existence (Browett 1981:18).

- It concentrated, like the modernisation/diffusion paradigm, more on ideological debate than on theoretical discussion (Browett 1981:19). In blaming the modernisation/diffusion paradigm for 'providing ideological justification for Western countries to exploit Third World countries', it argued that dependency caused by Western exploitation is 'the explanation for everything which seems to be wrong with Latin American' as well as other developing countries (So 1990:131; O'Brien 1975:12). Thus, just as the modernisation/diffusion theorists believed in the desirability and inevitability of worldwide capitalist development and considered their arguments as 'a non-communist manifesto' (Rostow 1960), the dependency/world-system theorists believed in the desirability and inevitability of socialism and claimed that 'we all remained committed to the historical objectives of world socialism' (Amin, Arrighi, Frank, and Wallerstein 1982:10). In this way, it 'gave up the battle for science after it lapsed into rhetoric' (So 1990:131).

Second, it was argued that the key conceptions in the paradigm about autonomy and development in the centre and dependence and underdevelopment in the periphery were problematic in at least three respects.

- They were self-contradictory in the sense that they defined development as a process of autocentric, autodynamic, self-sustaining, and non-dependent accumulation and growth on the one hand, and underdevelopment of the periphery as a condition of the development of the centre on the other hand. Thus as Bernstein (1979:92) observed: 'Underdevelopment theory

cannot have it both ways. If the field of analysis is world economy, if the centre needs the periphery for modes of exploitation..., then there is no capitalist formation whose development can be regional autonomous, self-generating or self-perpetuating'. Therefore, 'development cannot be conceptualised by its self-centred nature and lack of dependence, nor "underdevelopment" by its dependence and lack of autonomy'.

- They did not conform to the reality of the developed world in the sense that dependency characteristics can also be found in developed countries—the 'Canada problem' (Browett 1981:18; O'Brien 1975:24; Kay 1975:104; Lall 1975:808). Increasing evidence showed, as Larrain (1989:178) stated, 'how cultural and political penetration occurs in the developed world as well, how all countries including the developed ones are increasingly dominated by international capital..., how there is also marginalisation and inequality in non-dependent economies.'
- They were also not in keeping with the reality of the underdeveloped world in the sense that some underdeveloped countries have indeed achieved rapid development even though they remain dependent in different degrees—the NICs phenomenon (Browett 1986:409; Hettne 1990:94). Dependence did not necessarily lead to underdevelopment, and some underdeveloped countries even have 'benefited from dependency and in economic terms successfully achieved capitalist development' (Barone 1983:45). Autonomy and development were not, as dependence/world-system theorists supposed, necessarily related to one another, nor were dependency and underdevelopment.

Third, the dependency/world-system paradigm was criticised for its 'circulationist' view on capitalist world system which overstressed the role of worldwide unequal exchange relations. This circulationist view was, it was said, wrong on two grounds. On the one hand, in order to show the drain of surplus as the main root of dependence and underdevelopment in the periphery, the dependency/world-system theorists tended to overemphasise 'the preeminence and insidiousness of the deleterious impacts of external forces, especially international trade and investment' and, therefore, overlooked the positive effects of these external forces on the economic development of the periphery (Browett 1986:409)[8]. On the other hand, the dependency/world-system theorists tended to allow spatial structure to outweigh class structure, and exchange relations to outweigh production relations. Spatial structures, spatial relationships, spatial inequalities, and spatial conflicts were, as Browett (1981:19) pointed out, such an 'overwhelming focus' in their analyses that 'they were maintained in a position of pre-eminence over class structure—relations of exploitation among social classes' (also see, Roxborough 1976:121; Brenner 1977:27, 53–67). Thus the 'exploitation of poor countries by rich countries is to conceal the true exploitation of workers or to relegate it to a position of secondary importance' (Larrain 1989:191; also see Bettelheim 1972:301). By the same token, worldwide exchange relations attracted such great attention from the proponents of the paradigm that they tended to see 'relations of production as being dominated and defined by exchange relations' (Browett 1981:19; Laclau 1971:24–5; Brenner 1977:31–3).

[8] As Warren (1980:142) argued, in order for such a drain of surplus to lead to underdevelopment, 'it must be an *absolute drain,* not simply an unequal 'transaction' that nevertheless leaves both sides better off than before'. Since international trade is not a zero-sum game in which one country's gain must be another country's loss, and since foreign investment can bring about 'new values, salaries and state revenues', then 'it is highly unlikely at first glance that either foreign investment or unequal exchange (supposing it to exist) causes an absolute drain of surplus compared to the situation that would pertain in the absence of the investment or trade' (also see, Larrain 1989:191; Jenkins 1987:98).

These critiques did point to some shortcomings in the dependency/world-system paradigm, and it was said that some of them were overcome by the proponents of the paradigm in their later writings in the light of these critiques. It seems to me, however, that three key weaknesses in the paradigm still need to be highlighted here which have been directly and profoundly responsible for leading the paradigm to a *cul de sac*.

The first key weakness lies in the overall theoretical framework of the paradigm which is actually based upon a misconception of a so-called 'modern capitalist world system'. The dependency/world-system theorists all believed, as did modernisation/diffusion theorists, that the modern world is capitalist in nature. The problem in this misconception is that capitalism as a mode of production is extended to a worldwide economic system. The two different things are therefore conflated into one concept: 'capitalist world economy' or 'capitalist world system'. It seems to me that many shortcomings in the paradigm are the result of this conflation. In order to come to terms with the fact of the coexistence of many different modes of production in their 'capitalist world system', for example, the proponents of the paradigm had to put exchange relations in a dominant position in their definition of capitalism, thus committing the so-called 'circulationist' error. This was most obvious in Wallerstein's definition of capitalism: '...a system of production for sale in a market for profit and the appropriation of this profit on the basis of individual or collective ownership' (Wallerstein 1979:66). Thus the capitalist world system was actually equated to a global market economy in the dependency/world-system paradigm. This equation led the paradigm, in turn, into a dilemma in identifying the origins of this modern world system and distinguishing it from other historical systems. Keeping this in mind, it should not at all come as a surprise when it is found that the

proponents of the paradigm 'split up' recently, with Wallerstein and Amin insisting that the capitalist world system has a history of 500 years and is substantially different from previous systems, and with Frank and others claiming that the capitalist world system has a history of at least 5000 years which covers the whole civilised history of humankind (Frank 1990; 1991; 1992; Wallerstein 1991b; 1992; 1993; Gills and Frank 1992; Amin 1991b). This debate is still going on between the proponents of the paradigm and cannot lead them out of the dilemma as long as they continue to equate the mode of production to the economic system, and capitalism to the market economy.

The difference between a mode of production and an economic system has been pointed out by some of the critics of the dependency/world-system paradigm. Laclau (1977:34–5) noted, for instance, that a mode of production is 'an integrated complex of social productive forces and relations linked to a determinate type of ownership of the means of production', whereas an economic system consists of 'the mutual relations between the different sectors of the economy, or between different production units, whether on a regional, national or world scale'. A detailed analysis of the difference is beyond the scope of the study, but suffice to say that a mode of production mainly concerns production relations in the production process. There have been, for instance, slavery, feudal, capitalist, and socialist modes of production. An economic system mainly concerns exchange relations in all economic activities. There have been, for example, the natural economy (production for self-sufficiency) and the market economy (production for markets). As society does not, as both modernisation/diffusion theorists and dependency/world-system theorists supposed, develop in a unilinear manner but in a multilinear manner, the relationship between capitalism and the market economy is that capitalism as a mode of production can

only exist and develop in the market economic system, but the market economic system can cover many different modes of production.

Based upon this argument, it is clear that the coexistence of many different modes of production in the modern world and the overwhelming trend towards globalisation of the market economy in the modern world suggest that if there does exist a modern world system, it is a global market economic system rather than a capitalist world system. If so, then, the overall theoretical framework of the dependency/world-system paradigm must be abandoned before any significant progress can be made.

The second key weakness concerns the assumption of divergence. All proponents of the paradigm insisted, as shown above, that the overall tendency in the modern world has been towards divergence in the sense that the world has been increasingly polarised into developed and underdeveloped areas. As Wallerstein (1990:290) admitted later, however, the dependency/world-system paradigm 'has never really elaborated' this issue, and 'until we tackle convincingly the question of polarisation, we cannot expect to become truly influential'. The difficulties in elaborating and tackling the polarisation problem are, according to Wallerstein (1990:291) entirely 'technical (how to measure) and substantive (what to measure)' in nature.

It seems to me, however, that whilst the 'technical and substantive' dimensions of the issue are no doubt very important, the theoretical dimension of the issue is more crucial as far as the dependency/world-system paradigm is concerned. This is because the dependency/world-system theorists defined this issue as 'polarisation within the capitalist world economy' (Wallerstein 1990:290). But the 'capitalist world economy' or 'capitalist world system' itself is, as analysed above, a

misconception which conflates mode of production with economic system. On the basis of such a misconception, the dependency/world-system theorists can see only absolute exploitative relations and zero-sum gains in international economic activities such as trade, investment, and financial transactions and, therefore, only tendencies toward divergence in modern world, as opposed to tendencies toward convergence assumed by the modernisation/diffusion paradigm.

In the modern world, however, there have been not only exploitative and zero-sum relations, but also mutually beneficial relations that can be better understood and explained if analysed in the context of the global market economy. The concept of global market economy allows for both mutually beneficial relations and unequally distributive relations in international economic activities. In the process of globalisation of the market economy, international trade based upon comparative advantage can, as analysed in the previous section, benefit all the trading countries, while implying the possibility of an unequal distribution of the gains and, therefore, a widening development gap between the trading countries. By the same token, other international economic activities such as investment and financial flows can also be advantageous to the recipient countries in terms of creating employment, providing for needed capital, instilling new management knowledge and technical skills, while implying the possibility of benefiting the investor and donor countries more than the recipient countries and, therefore, the possibility of enlarging inequalities between them (see, for instance, Warren 1980:142; Kitching 1982:167; Larrain 1989:191).

In the context of the global market economy, therefore, we can see not only tendencies toward divergence in certain aspects of development resulting from the unequal distribution of benefits, but also tendencies toward convergence in certain aspects of development caused by, among other things, the mutually beneficial effects

of international economic activities. Divergence in some aspects does not mean that there is no convergence in other aspects, and *vice versa*. The question is not, as argued by the dependency/world-system paradigm and the modernisation/diffusion paradigm, whether there are absolute tendencies toward divergence or absolute tendencies toward convergence in modern world, but what have been converging and what have been diverging in the modern world. Attention should be focused upon analysing the parallel tendencies toward divergence and convergence, their expressions in various aspects of development, and their different and common dynamics and mechanisms. Any attempt to stress only absolute divergence or absolute convergence is an oversimplification of the issue.[9]

The third key weakness relates to the de-linking strategy derived by the dependency/world-system theorists from their arguments about the undesirability of integration into the capitalist world system. Since they equated the capitalist world system with the global market economy, their de-linking strategy in fact meant 'a break with the world market' (Amin 1974:35). In order to prove the validity of the de-linking strategy, they have to deny or weaken the possibility that the exploited, marginalised peripheral countries can develop within the capitalist/market world system, they have to denounce capitalism/market for everything that seems wrong in the modern world and announce its demise in a near future, and they have to expect socialist de-linking to be a panacea.

[9] It is worth mentioning that the 'simultaneous occurrence of both convergence and divergence' in the modern world was noticed and analysed by some scholars, such as Hoover, with advanced quantitative methods, but they were still trapped in the theoretical framework of dependency/world-system paradigm. They could, therefore, only reach the findings that 'partially support' the paradigm's basic view that 'divergence occurs between the three zones (core, semiperiphery, and periphery), whereas convergence occurs within them' (Hoover 1988:838). This further suggests that only once the theoretical framework of the dependency/world-system paradigm is transcended can Wallerstein's 'technical and substantive' problems be tackled in a correct theoretical direction, and can researchers make significant progress.

Such arguments could at best amount to eloquent revolutionary slogans, but would become very vulnerable when applied to the real world. At least three developments in the real world in the past few decades have pointed to the vulnerability of the arguments.

- Socialist countries in the East which carried out, according to the dependency/world-system theorists, the de-linking strategy previously, recently had to 'reintegrate' themselves 'into the capitalist international division of labour' (Frank 1984:226).
- Some developing countries in the South have achieved, despite the denial or reluctant recognition from the dependency/world-system theorists, tremendous developments.
- Capitalism in its centre (the West) is not, as the dependency/world-system theorists predicted, dying from its inherent contradictions and crises, but has recovered from crises and demonstrated considerable vitality.

Faced with these realities, proponents of the dependency/world-system paradigm could do little more than change or modify their arguments and beliefs. As a result, their arguments and beliefs became more and more divergent in recent years. Some, such as Wallerstein, continued to insist on the overoptimistic view that 'capitalism as an historical system...will perhaps be no more by 2050', but became more and more uncertain about 'what kind of new historical system to build, and how' (Wallerstein 1993:5). Others, such as Amin, redefined the de-linking strategy as 'the rebuilding of the world system on the basis of polycentrism' and, therefore, actually abandoned the original meaning—'a break with the world market' (Amin 1991a: 84; 1974:35). Still others, such as Frank, changed from optimistic to 'pessimistic because of his exaggerated emphasis on these (capitalist) "successes" and his impatience for more

consistent policies on the part of antisystemic movements' (Amin, Arrighi, Frank, and Wallerstein 1982:243). In such a confusion, developing countries are informed by the proponents of the paradigm little more than that they should continue to actively fight a 'shadow-boxing' battle with the so-called capitalist world system but have no idea about where the battle may lead, or they have to passively wait for this capitalist world system to pass away but still have no clear ideas about what kind of a new system is waiting for them.

We do not live in a capitalist world system but in a global market system. The confusion left by the dependency/world-system paradigm could be, it seems to me, better clarified in the light of such a worldview. Compared with the dependency/world-system paradigm, this worldview has at least two advantages in so far as the strategic dimension of the issue is concerned. On the one hand, it allows for, as analysed above, parallel tendencies toward convergence and divergence and, therefore, possibilities of development on the part of developing countries. The possibilities lie in that although participation in the global market economy can unequally benefit participant countries, the question of which particular country can gain or gain more is not, as dependency/world-system theorists argued, determined, but open. That is, it depends upon how the participant countries adapt their development strategy to the process of global market integration, expecially how they make the best use of market mechanisms in domestic and international economic activities. This argument provides, as opposed to the 'static', 'mechanic', 'passive', 'pessimistic', and 'determinist' arguments of the dependency/world-system paradigm, justifications for active development strategies which can better benefit developing countries in their participation in the global market economy. On the other hand, it distinguishes between the capitalist mode of production and the global market

economy, allows for the coexistence of many different modes of production within the global market economy and, therefore, avoids the 'utopian' and 'unrealistic' views of the paradigm about the future of the system and the corresponding development strategies. Accumulating evidence of the increased integration of different modes of production in various parts of the world into the global market economy suggests that, even though some modes of production within the system might pass away as time goes on, the global market economic system has not so far developed to its full potential and will continue, contrary to what the dependency/world-system theorists predicted, well into the far future. Any country that wants to exist and develop in the present world, no matter whether it is a developed or developing country and no matter what kind of modes of production it has inherited from the past, should adopt 'pragmatic' development strategies at both the national and international levels to accommodate this reality. Any attempt at de-linking with the global market economy is doomed to failure. Participation in the global market economy is, in a sense, inevitable for all members of the globe at this stage, and will continue to be so for a very long period of time to come.

The two debates can, as shown below, help us understand the theoretical background and the nature of China's opening up since 1978, and then proceed to evaluate the impact of the opening up on China's development performance. Each of the schools in the debates has its own strong points and weak points, in the meantime China's opening up is well beyond the scope covered by the debates, so the study does not intend to verify or falsify any of the schools. In the concluding chapter, however, some arguments of these schools are mentioned in passing in the discussion on implications of the study for developing countries.

3 From passive to active participation

China began to open up in 1978 when it adopted reform and open-door polices. This is one of the most significant events in the history of the People's Republic of China in that it has involved the most fundamental changes in both domestic and foreign policies since the establishment of the People's Republic in 1949 and, therefore, signifies a radical change in China's overall development strategy. How to understand China's opening up from the perspective of a change in the development strategy? This is a crucial issue that has been addressed insufficiently so far. In this chapter the issue is examined in the light of the debates on participation in the global market economy in the field of development studies illustrated in the last chapter, and also in the light of the domestic and international backgrounds against which China's strategic change occurred.

Radical strategic change in China

The debates on participation in the global market economy in development studies analysed in Chapter 2 shed a great deal of light on China's radical strategic change since 1978. It is argued that underlying the reform and open-door policies has been a change in development strategy from socialist de-linking to socialist re-linking with market systems both domestically and internationally. From 1978 onward, therefore, China began to change from a passive to active participant in the global market economy, and opened up to market systems both domestically and internationally. The argument provides a basis for us to analyse all the policy changes that China has

undergone since 1978. Apparently, however, it necessitates not only a comparison between the socialist de-linking and the socialist re-linking development strategy in the two periods, but also a broad definition of 'opening up' in China's special case.

Socialist de-linking in retrospect

The socialist de-linking strategy has to be located in the context of increased global integration. By the twentieth century, globalisation had proceeded to such an extent that no country in the world could avoid being involved in the global market economic system. A country had to participate, either actively or passively, in the global market economy, whether it wanted to or not. Even if a country tried to de-link with market systems, as China did in the pre-1978 period, it still had to participate, passively though, in the global market economy. The socialist de-linking strategy does not mean, therefore, that China did not participate in the global market economy, and closed its door to the outside world in the pre-1978 period. Otherwise, China's radical change in development strategy since 1978 cannot be properly understood, and the recent controversy over China's open-door policy cannot be properly solved.

The open-door policy controversy. With the tremendous success of China's open-door policy in the last decade or so, a great deal of attention has been paid to the origins and timing of that policy, its scope and dimensions, and its effects and consequences. Insufficient effort, however, has been made to analyse the nature of the policy change and relate it to other policy changes. This has resulted in considerable difficulties in defining and assessing the open-door policy and comparing it with the previous approach. Many questions have arisen.

If the open-door policy simply 'symbolises China's sharp turn towards participation in the world market to speed up economic growth and technological modernisation' (Riskin 1987:366), then China must have been 'pursuing an autarchic development strategy' in the previous 'two decades, during which the door had been closed' (Gittings 1989:227; Promfret 1991:1). This is obviously at odds with the fact that China had considerable economic contacts with the rest of the world before 1978 (especially in the 1950s with the Soviet Union and Eastern European countries; in the early 1960s, early 1970s, and 1976–1978 with Western countries). If China's open-door policy is simply 'a vital part of China's new development strategy of intensive growth—growth through adoption and diffusion of technology, especially foreign technology', then the novelty of the open-door is no more than the 'willingness to acquire technology through foreign investment' since 'China imported foreign technology, including capitalist technology, in Mao's era' (Sung 1991:1). Clearly China's open-door policy has many more dimensions than the simple acquisition of foreign technology through foreign investment. If China had already had considerable economic contact with the rest of the world well before China was generally said to initiate the open-door policy in 1978, why is it not possible for us to trace 'the opening up of China to the early 1970s' as 'the door had slowly been opening since 1970, when China began to move back into the world by increasing foreign trade and joining the United Nations' (Brugger and Reglar 1994:1; Bucknall 1989:xvii)? There is indeed a degree of confusion about the timing of China's open-door policy.

It seems that the lack of interest on the part of some China analysts in international development theories and realities was partly responsible for these difficulties. As Pomfret (1992:2) pointed out:

> During the 1980s economists studying the process of economic reform in China did so in a vacuum. There was little reference either to the literature on

> economic development or to reforms in other centrally planned economies. The reason for this lack of comparative analysis appears to have been a belief that the Chinese case was *sui generis*: too different from the market-oriented economy assumed in the non-Marxist development literature and from the feeble reforms occurring in the USSR or other communist countries before 1989.

This 'splendid isolation' in China studies in the 1980s, described by Pomfret, seemed to be changing in the 1990s, but unfortunately has not changed very much. The difficulties could be better solved if we take into account the debate on participation in the global market economy in development studies.

Before adopting the open-door policy in 1978, China had actually pursued a typical comprehensive socialist de-linking development strategy recommended by the dependency/world-system school for almost three decades. Although there were diverging and changing interpretations and opinions within the school, the original meaning of the de-linking strategy was, as analysed previously, to 'break with the world market' (Amin 1974:35). The core of China's socialist de-linking strategy over that period was to establish a socialist society based upon a planned economic system so that China could break with the 'capitalist' worldwide market economic system domestically and internationally. That socialist de-linking strategy found expressions in both China's domestic and foreign policies, and determined that China's participation in the global market economy could only be passive—passive in the sense that China's economic structure was alien from those prevailing in the world market system, China's attitude towards the existing world market system was radical and hostile, China followed an extremely inward-looking ISI trade and development pattern, and China's economic contacts with the rest of the world were thus limited and restricted. During that period, China did not in any sense 'emerge' in the global market economy. To understand China's opening up since 1978, it is very important

to analyse China's passive participation in the previous period in the light of China's overall socialist de-linking orientation in both domestic and foreign policies.

Socialist de-linking in domestic policy. China's socialist de-linking strategy was deeply rooted in the Chinese Communist Party's understanding of China's bitter experience in the past one hundred years, in orthodox Marxist theory and in the available Soviet model in Eastern Europe. It was especially based upon two notions. The first concerned the modern world system and China's position in it. The modern world was supposed to be capitalist in nature and had reached, according to Lenin, its highest stage by the early twentieth century—the stage of imperialism based upon monopoly capitalism. The imperialist powers at the centre of the capitalist world system had divided the rest of the world into their colonies and spheres of influence. Peripheral countries, including China, were so severely exploited and oppressed by imperialist powers that they were actually denied any opportunity of independent capitalist development. Capitalist revolution and development in those countries was doomed to failure. Only socialist de-linking from the capitalist world system could lead those countries to development and prosperity. The second notion referred to an ideal type of socialism, and its superiority over capitalism. A capitalist society was supposed to operate in an anarchistic market system based upon private ownership, punctuated by economic crises of over-production, and characterised by increasing polarisation and intensified class struggle. A socialist society, in contrast, was supposed to operate in a planned system based upon public ownership, characterised by tight control of anarchistic markets until the eventual extinction of all commodity relations, and marked by both rapid and sustained economic development and increased social equality.

It was upon the basis of those two notions that Communist leaders concluded that 'only socialism can save China', and, therefore, started to pursue the socialist de-linking strategy immediately after they achieved national power in 1949. In domestic policy, the de-linking strategy bore three basic characteristics. The first characteristic concerned market mechanisms under socialism. Following orthodox Marxist theory as specified by the Soviet model, Communist Party leaders believed that in an ideal communist society there would be no commodity relations at all: 'the producers do not exchange their products...since now, in contrast to capitalist society, individual labour no longer exists in an indirect fashion but directly as a component part of the total labour' (Marx 1972:14–5). Although commodity and market relations were accepted to some extent in socialist society—the first stage of communism, they must be increasingly limited in scope, gradually eliminated and then replaced by economic planning. In short, market mechanisms were supposed to be by nature compatible with capitalism and incompatible with socialism. Based upon this assumption, mainstream Party leaders tried hard to expand socialist planning and to restrict market mechanisms.

The second characteristics related to ownership of the means of production. From orthodox Marxist-Leninist theory and the Soviet model, Communist Party leaders believed that a socialist planned economy could only be built upon public ownership rather than private ownership, since the latter was bound up with market anarchy. Due to such a belief, Party leaders considered the establishment of public ownership as a central task, and launched one campaign after another to eliminate all forms of ownership which were seen as antagonistic to socialism. The 'socialist transformation' process proceeded in such a rushed way that, by 1957, public ownership had been established almost all over the country, despite the fact that total

socialisation was originally planned to be implemented by 1968. In a nutshell, the view animating Party leaders in that period was that the more public the ownership became, the better it served socialist development.

The third characteristics concerned class struggle and 'continuous revolution'. From orthodox Marxist theory and the Soviet experience, Communist Party leaders believed that class struggle would exist under socialism for a rather long period of time, since the vestiges of old societies would continuously give birth to a 'new capitalist class' and socialism would inevitably meet resistance from internal and international capitalist forces. Such class struggles would find expression within the Communist Party itself and take the form of 'two-line struggles' between 'capitalist roaders' and those adhering to the socialist road. 'Continuous revolution' characterised by large-scale class struggle of a mass character, therefore, was needed to safeguard China from 'the restoration of capitalism'. Although Party leaders continually stressed economic development as essential to create conditions for communism, the emphasis on class struggle submerged considerations of economic development. Political campaigns against capitalism in its various forms occurred like waves one after another, culminating in the Great Proletarian Cultural Revolution (GPCR).

Socialist de-linking in foreign policy. Many efforts have been made in the last few decades to analyse the evolution of China's diplomacy and foreign relations over that period and to draw out the difference between that period and the present one; but few have done so in the light of China's overall socialist de-linking strategy. It is crucial to remember that China's overall socialist de-linking strategy determined China's foreign policy. There were two basic characteristics.

The first was an overwhelming devotion to a worldwide socialist revolution. According to Marxism-Leninism, communist movements are international in nature—international in the sense that only united efforts of proletarian and other oppressed people in the world can defeat the united resistance of the bourgeoisie and other ruling classes. Proletarian internationalism was the dominant theme in China's foreign policy. It was believed that the country succeeding first in the socialist revolution should actively engage in worldwide revolutionary struggles until the whole capitalist world system would be overthrown and replaced by a new socialist/communist world system. Such a mission Party leaders referred to as the indispensable proletarian internationalist duty. All foreign affairs were considered and dealt with in the light of discharging that duty. Considerations of that duty led China to 'lean to one side' in the 1950s. As the Party saw it: 'all Chinese without exception must lean either to the side of imperialism or to the side of socialism' (Mao Zedong 1968:416). With that notion, too, China began to oppose international 'revisionism' headed by the Soviet Union in the 1960s and 1970s. Chinese Party leaders considered that the Soviet Union had betrayed socialism and had become an enemy as dangerous as, or even more dangerous than, the United States to what was considered to be the world revolutionary cause. On the basis of that notion, moreover, Chinese leaders extensively and enthusiastically supported all struggles in Third World countries which it considered 'revolutionary'. The Party held that the oppressed people in these countries constituted the main forces in the struggle against imperialism and social-imperialism, and that they would follow China's example in carrying out socialist revolution. This was the basis of China's radical diplomacy over that period.

The second characteristic was an extremely restrictive attitude towards foreign economic relations. It was restrictive, first of all, in the sense that China's foreign

economic relations were subordinate to the worldwide socialist revolutionary cause mentioned above. Ideological and political factors, therefore, played an overwhelming role in China's economic relations with foreign countries. Consider China's economic relations in the 1950s which were largely restricted to the socialist Eastern bloc to the exclusion of almost any economic contact with the capitalist West. Such was the consequence of 'leaning to one side'. Consider also China's economic relations with the Western bloc after the split between China and the Soviet Union in the 1960s. At that time China developed economic relations with the West to the exclusion of almost any economic contact with the Eastern bloc, especially the Soviet Union. China's economic relations with Third World countries over that period, such as China's aid to Tanzania, Zambia, Viet Nam and Kampuchea, were also mainly characterised by subordination to political and ideological considerations.

It was also restricted in the sense that China's foreign economic relations served an excessive self-reliance principle. The principle of self-reliance, developed in the pre-liberation period, originally meant relying on one's own strength in political struggles (Mao Zedong 1968:1030). After liberation, however, partly because of the embargo on China placed by the United States as well as the conflict with the Soviet Union, and partly because of the ultra-leftist and idealist tendency within the Chinese Communist Party, that principle was applied to the economic field to such an extent that it actually denied the benefits of ordinary economic cooperation with other countries and international organisations. This trend culminated in the Cultural Revolution when China imposed on itself 'a greater degree of economic isolation than was either desirable for growth or necessary for self-reliance' (Riskin 1987:209). Consider for a moment the Tangshan earthquake in the summer of 1976. In the wake of that catastrophe in which nearly half a million people died, the Chinese

authorities refused any foreign aid. Such an excessive emphasis on self-reliance found expression in almost all fields of China's foreign economic relations.

Lastly, it was restrictive in the sense that China's foreign economic relations were under the influence of foreign trade theories which denied the benefits of the international division of labour. Structuralist theories of unequal exchange and a deterioration in the terms of trade prevailed in Chinese economic thinking in that period. If international trade was unequal, then it must be associated with cross-country exploitation. It followed that if China developed international trade, then it must either exploit or be exploited by other countries. Neither was compatible with China's socialist revolutionary ideology. The Chinese authorities believed, therefore, that China must only engage in equal foreign trade, and that a trade balance is the sole indicator of such trade. A trade deficit or a surplus indicates benefits to one party and losses to the other (Writers Group 1974–5:10; Wei Bingkui 1974:85; Liu Chaochin 1978:9–10; Ma Shuyun 1986:297). Under the influence of such trade theories and the above-mentioned excessive self-reliance principle, China's foreign trade was very limited, to the extent that imports only made up for shortages in domestic production while exports were only a means to provide foreign currency for imports. As a result, China actually adopted an inward-looking ISI trade and development pattern to increase its capacity for self-sufficiency, and failed to make full use of foreign trade to accelerate economic development. One of the indicators of such failure was China's decreasing share in the total value of world trade: from 1.4 per cent in the 1950s down to 1.1 per cent in the 1960s, and 0.8 per cent in the 1970s (Teng Weizao 1982:168).

Socialist re-linking strategy

The underlying assumption of the socialist de-linking strategy was, as seen above, that a 'socialist' planned economic system is different from, and opposite to, a 'capitalist' market economic system. To the extent that this underlying assumption, as well as all the five basic characteristics of China's overall socialist de-linking strategy analysed previously, has been under attack and has gradually lost legitimacy in China since 1978, the de-linking strategy has been gradually replaced by a re-linking strategy. In the strategic change, as seen below, China has deradicalised and reoriented its domestic and foreign policies, and has begun to be characterised, like most countries in the world, as having a 'mixed economy' combining market and planning on the one hand and diversifying ownership of the means of production on the other. China has begun to open up to market systems both domestically and internationally, and China's participation in the global market economy has become active.

Socialist re-linking in domestic policy. As the socialist de-linking strategy in the period from 1949 to 1978 took shape within a complex national and international context, so has the socialist re-linking strategy since 1978. A detailed analysis of the national and international impetuses behind the strategic change is left to the next sections, but suffice it to say that the socialist de-linking strategy which China pursued for almost 30 years had created tremendous economic and political problems by the end of the 1970s. Rigid central economic planning and monolithic public ownership depressed producers' enthusiasm for production and reduced economic efficiency, resulting in a continuing fall in the growth rate of total output value of

society (TOVS) and national income (NI) in 'Five Year Plan' periods.[1] Violent and fanatic class struggles and 'continuous revolution' led to periodic political and social chaos and, therefore, exacerbated the situation. Thus, the three basic characteristics of socialist de-linking in domestic policy, analysed above, were challenged immediately after the realistic and pragmatic tendency headed by Deng Xiaoping took power in 1978.

Productive forces and modernisation first. The first characteristic to come under attack was the over-emphasis on class struggle and 'continuous revolution'. In early 1978, a number of articles appeared in *Jingji yanjiu* (Economic Research) to question the theoretical assumptions of such over-emphasis, stressing instead the importance of productive forces (Xu Dixin 1978; Lin Zilin and You Lin 1978; Zhang Wen 1978). These criticisms were, however, quite tentative and reserved, since Mao Zedong's statement of 'class struggle as the key link' was still honoured by the 'whateverists' headed by Hua Guofeng, then Chairman of the Communist Party. The 'whateverists' were denounced at the Third Plenum in 1978, when a decision was made to abandon Mao Zedong's position and shift the focus of the Party to economic development. The development of 'productive forces' and the implementation of the 'socialist four modernisations' would, it was said, outweigh class struggle and political campaigns in China's overall new development strategy (*Renmin ribao* 25 Dec 1978:4). After the Plenum, despite some criticisms, such an official position did not provoke fierce debate among theorists, especially economists. This was partly

[1] The growth rates of TOVS and national income fell from 11.3 per cent and 8.9 per cent in the First Five Year Plan period (1953–1957) to 0.4 per cent and -3.1 per cent in the Second Five Year Plan period (1958–1962), respectively. The situation was so serious that the long-term economic planning had to be given up in the period between 1963 and 1965 which saw an increase in the growth rates of TOVS and national income, 15.5 per cent and 14.7 per cent, respectively. After the long-term economic planning was resumed, however, growth rates fell once again: the Third Five Year Plan period (1966–1970) saw a decrease in the growth rates of TOVS and national income, 9.3 per cent and 8.3 per cent, respectively; and the Fourth Five Year Plan period (1971–75) witnessed a further decrease, 7.3 per cent and 5.5 per cent, respectively (see Ma Yuping and Huang Yuchong 1989:581).

because they were concerned over the serious economic situation, and partly because they disliked intensely the political tension caused by previous class struggles. After all most were victims of such struggles. As to how to develop the productive forces and implement socialist modernisations, however, debates occurred which demanded abandoning other basic characteristics of the socialist de-linking strategy.

Combination of market and planning. The second characteristic under criticism was the assumed antithesis between a 'socialist' planned economy and a 'capitalist' market economy. The criticism mainly concentrated on two issues. The first was the relationship between market mechanisms and planning. Some argued that market mechanisms and planning permeate each other or are 'rubber-glued' together. They are equal in importance, equal in the sense that they are complementary, correcting each other's imperfections (Liu Guoguang and Zhao Renwei 1979; He Jianzhang, Wang Jiye, and Wu Kaitai 1980). Others advocated the precedence of planning over market mechanisms, arguing for 'planned economy in the main and market regulation as the supplement', likening a market-planning relationship to 'a bird in a cage' (Chen Yun 1986:12–3, 275–80; *Renmin ribao* 6 Jan 1982:1). Still others believed that both market and planning are not fundamental attributes of economic systems but merely methods or managerial processes which can be used by different economic systems, socialism and capitalism alike (Gao Shangqing 1988:23–6). These three approaches can be said to represent the mainstream pro-market trend after 1978, as opposed to a small counter-current which continued to highlight the planned nature of socialist economic system. It was obvious that the degree of the pro-market tendency differed between the three approaches. The official position vacillated between the more market-oriented and the

less market-oriented in accordance with China's economic cycles in the period, but the former increasingly dominated as reform went on.

The second issue concerned the dimensions of market and planning respectively. For the former, some insisted on the orthodox Soviet view that the market under socialism is only a limited commodity market; the means of production is excluded from that market (Sun Yefang 1979; Gao Zhihua 1980). Critics argued that not only commodities, but also most productive resources such as labour, capital, funds, foreign exchange and the like should enter the market (Liu Guoguang 1979; Feng Baoxing, Wang Xin and Cheng Dajian 1979; He Wei 1986). The official position was in favour of the latter view. By the late 1980s, the market in China had expanded so rapidly that it included almost all resources to different degrees. As for the dimensions of planning, under critique was the orthodox Soviet view that socialist planning is basically mandatory, with compulsory targets for production and distribution. Critics argued that such mandatory planning was mainly responsible for the bad economic performance in previous years and, therefore, should be limited and reduced in favour of a new type of socialist planning—guidance planning, with only suggested targets. They believed that guidance planning (through economic levers such as prices, taxes, credit, and interest rates) allows the market mechanism to play a dominant role in economic development, and is the best way to combine market and planning to raise productivity. Such a position was increasingly accepted by the majority of economists and policymakers (*Renmin ribao* 6 Sept 1982; *Beijing Review* 13 Sept 1982; Xie Yuhu 1982; Zhao Renwei 1985). As a result of these discussions, the beliefs that the planned economy is equal to socialism and that the market economy is equal to capitalism have been abandoned. Since 1978, China's economy has developed more and more in a market-oriented direction. In 1992, Party leaders

called for the establishment of 'a socialist commodity economy' and, therefore, officially affirmed the central role of market mechanisms in China's socialist economic system and its overall development strategy.

Diversification of ownership. The third characteristic under attack related to public ownership of the means of production. As the belief in 'exclusive', 'pure' and 'monolithic' socialist planning was undermined, so was that in 'exclusive', 'pure' and 'monolithic' socialist public ownership of the means of production. The challenge was aimed first of all at previous public ownership: collective and state ownership. Collective ownership was challenged by the experimental rural reform of the 'contract production responsibility system', initiated in 1978 by Wan Li and Zhao Ziyang in Anhui and Sichuan provinces where they were First Party Secretaries respectively. Although ownership of the land was still formally vested in communes (and later villages), the reform actually meant, as White (1993:100) noted, 'a return to household agriculture', and 'set in train a *de facto* decollectivisation of agriculture'. Despite some opposition, the reform proved to be a success in raising productivity and, therefore, gained support from the Chinese authorities. By the end of 1983, the reform had spread all over the country. State ownership was questioned mainly on the empirical ground that it had proven to be one of the main, if not the root, causes of all problems in China's previous economic development.[2] Two reform approaches were proposed. Some advocated changing state ownership into 'workers' ownership', 'three-level ownership', 'enterprise ownership', 'share-holding ownership' or even 'private ownership' (Dong Fureng 1979; Li Weisen 1986; Jiang Yiwei 1987; He Wei

[2] According to China's official data (Wang Bingqian 1989:2; 1990: ix–xii; 1991:34–7; Ministry of Finance General Planning Department 1989:16–7), government subsidies to financial losses incurred by state-owned enterprises increased from about 12.5 billion *yuan* in 1978 to about 60 billion *yuan* in 1989. This supported the World Bank's assessment that the state-owned enterprises are a significant drain on the economy and a prime contributor to high and rising rates of inflation as the government must print money to cover the financial losses of these enterprises (World Bank 1994).

1986; Shen Shouye 1987; *Wall Street Journal* 19 Feb 1988:16). Others advocated reform of management without changing the nature of state ownership. Such management reform actually meant, imitating the reform in collective ownership, a 'separation of two rights' (ownership rights and management rights) in the form of a 'management contract responsibility system'. The latter approach gained support from the authorities (*Renmin ribao* 26 Aug 1984; 12 Jan 1987), and by the late 1980s, the system had been adopted by most medium-size and small-size state enterprises.

The challenge continued with a reconsideration of other forms of ownership, especially private and share-holding ownership. Despite some criticisms, the necessity for private and share-holding ownership in China was increasingly accepted by most economists. They advocated 'long-term coexistence and mutual competition' between private and state enterprises, though the 'negative influence' of private ownership should be curbed (*Guangming ribao* 8 Nov 1986; 19 Sept 1987; *Beijing Review* 12 May 1986; *Shijie jingji daobao* 13 July 1987). They pointed to advantages of share-holding ownership, such as pooling idle financial resources for investment, and promoting workers' participation in management (*Beijing Review* 12 May 1986; 27 Dec 1986; *Guangming ribao* 6 Dec 1986; *Jingji ribao* 8 Nov 1988; *Remin ribao* 26 Sept 1986). The Chinese government supported this position. In the late 1987, the Thirteenth Party Congress officially endorsed share-holding ownership. In April 1988, the Seventh National People's Congress revised the state Constitution to permit the existence and development of privately owned enterprises (Article 11).[3] Meanwhile, especially into the 1990s, as an increasing number of state-owned enterprises made losses, various versions of *de facto* denationalisation of small-size and medium-size state-owned enterprises were endorsed by the government.

[3] By 1988, the number of privately owned (including individually owned) enterprises increased to more than 14 millions (Lu Xueyi and Li Peilin 1991:25).

Socialist re-linking in foreign policy. Changes in China's domestic policy demanded corresponding changes in foreign policy. As socialist de-linking gave way to socialist re-linking in domestic policymaking, it also gave way in China's foreign policymaking. China's socialist re-linking in foreign policy consisted mainly of the following two elements.

Independent and modernisation-oriented diplomacy. The shift of focus from class struggle to modernisation in 1978 signified, among other things, the beginning of ideological deradicalisation of China's domestic policy. However, corresponding ideological deradicalisation of China's diplomacy did not occur until 1982. As late as 1981, Party leaders still insisted on Mao Zedong's theory of three worlds as the basis of a diplomatic strategy of a worldwide, united revolutionary front against 'imperialism' and 'hegemonism'.[4] The discrepancy in timing between ideological deradicalisation in China's domestic policy and in China's diplomacy may possibly be explained by the new Party leaders' security concerns. The Soviet Union's expansion into China's neighbours such as Afghanistan and Indo-China countries, especially the Soviet Union's support for Vietnam in its military conflict with China, threatened China's security, and led Party leaders to believe that it was necessary to continue to maintain a strong anti-imperialist and anti-hegemonist ideological theme in its diplomacy in order to isolate the Soviet Union.

But after 1982, with *détente* between China and the Soviet Union, China's diplomacy began to be deradicalised. On the one hand, China adopted an independent diplomacy in order to avoid a pseudo-alliance with either of the two superpowers. On

[4] The continuing insistence on that revolutionary diplomacy was revealed in the Party's 'Resolution on Certain Questions in the History of Our Party Since the Founding of the People's Republic of China' passed at the Sixth Plenum of the Eleventh Congress in 1981. In that document, many of Mao's policies were criticised, but not his diplomatic strategy (Beijing Review 6 July 1981).

the other hand, China withdrew from promoting radical worldwide revolution against imperialism and hegemonism. Such was the result of perceived changes in the global strategic balance. It was also dictated by China's overall socialist re-linking development strategy, since modernisation could not be implemented in an antagonistic international environment. Underlying such a shift was a change in the guideline of China's diplomacy: 'discharging indispensable proletarian international duty' was replaced by 'discharging our lofty international duty to safeguard world peace and promote human progress' (*Beijing Review* 17 Sept 1982). The ideological deradicalisation of China's diplomacy was no doubt a part of, and also served, China's new overall development strategy of socialist re-linking with the worldwide market economic system, since it implied that China had to change from opposing to accepting the existing global market system.[5]

Open attitude toward foreign economic relations. Socialist re-linking in domestic policy demanded not only a change from a 'revolutionary' to a 'modernisation-oriented' diplomacy, but also a change from a restrictive to an open attitude toward foreign economic relations. Unlike the former, however, the latter occurred simultaneously with the change in domestic policy. At the Third Plenum of the Eleventh Central Committee, Party leaders declared that China would actively expand economic cooperation on terms of equality and mutual benefit with other countries and strive to adopt the world's advanced technologies (*Beijing Review* 29 Dec 1978:11). The decision made at the Plenum signified the official endorsement of the open-door policy. China's open-door policy was later clearly defined by Deng Xiaoping as 'economic opening-up to the outside world' (Deng Xiaoping 1985:19).

[5] By 1982, China's exports to market economies had accounted for 93.4 per cent of China's total exports, a striking contrast with the 1950s when it accounted only for about 26 per cent. (Bucknall 1989:195). Under such a circumstance, China had to change fundamentally its attitude towards the global market system.

The official endorsement of the 'economic open-door' in 1978 set off a chain of criticisms of the previous restrictive attitude toward foreign economic relations. The first point under attack was the over-emphasis on self-reliance. It was argued that the principle of self-reliance was so badly misunderstood in the previous period, especially during the Cultural Revolution, that it was tantamount to 'closing the country to international intercourse' and that self-reliance does not contradict expanding economic cooperation with foreign countries in the fields of trade, finance, labour, aid, technology and sciences and so on (Hu Yaobang 1986). The second point under attack was the superiority of political over economic considerations in foreign affairs. It was argued that foreign economic relations should no longer be influenced nor determined by politics and diplomacy; that ideological factors should be downgraded in China's economic relations with foreign countries; that China should develop economic relations with all countries in the world no matter what social system they have; and that China's support for the 'revolutionary cause' in other countries should take into consideration mutual economic benefits (Hu Yaobang 1986). The third point under challenge was the previous foreign trade theory and the trade and development pattern based upon it. Due to its increasing importance, this will be analysed in detail here.

The challenge started with a reassessment of the structuralist theory of unequal exchange and the classical and neoclassical economists' theory of comparative advantage. The structuralist theory of unequal exchange was criticised for various reasons, but unequal exchange between developed and developing countries was still adhered to by most Chinese economists. They differed, however, on what caused the unequal exchange (Yuan Wenqi 1980:13; Gao Dichen 1983:18; Tao Yongyin 1983:10; Chen Longshen 1983:21–3). Despite the difference, they

agreed that the existence of unequal exchange between developed and developing countries does not mean that the latter cannot benefit from international trade. It only means that gains from international trade are unequally distributed between them. This argument was first of all based upon the classical and neoclassical economists' theory of comparative advantage, which was believed to be compatible with Marxism. Thus a consensus was reached among most Chinese economists that international trade has the dual nature of mutual benefit and unequal exchange (*Jingji ribao* 21 May 1987; Yao Zengyin 1983:1–3, Li Chenglin 1983:12). Such a consensus, as Ma Shuyun (1986:293) noted, could save China from making the difficult choice between 'exploit' and 'be exploited'. With the dilemma overcome, the previous restrictive attitude toward foreign trade was criticised. It was argued that foreign trade, based upon comparative advantage, should make the best use of the international division of labour in order to actively promote national economic development—actively in the sense that 'exports are not only the means to earn foreign currency necessary for imports, but also the means to promote technological transformation and structural reform of the national economy', and in the sense that 'imports not only meet the needs in domestic market and production but also actively serve expanding exports' (Wang Shaxi, Wang Shouchun, and Xu Yu 1992:28–9). This position gained overwhelming support from the authorities.

The challenge continued with a reevaluation of trade and development patterns. On the one hand, some criticised the previous inward-looking ISI trade and development pattern for leading to low product quality, high costs, lack of efficiency, and shortage of foreign exchange. They advocated, therefore, an outward-looking export-oriented trade and development pattern (Huang Fangyi 1985). On the other hand, others argued that, considering China's size, the inward-looking ISI trade and

development pattern should be China's long-term orientation (Liu Changli 1987). Most Chinese economists, however, considered that there is no inherent incompatibility between these two patterns, that they both have their own strong points and shortcomings, and that they can be combined on a selective basis (Teng Weizao 1982; Li Yining 1989; Huang Shanhe 1988). The Party leaders in general supported that position and encouraged different regions to adopt different trade and development patterns. In view of the tremendous problems caused by the previous inward-looking ISI trade and development pattern, they proposed an 'economic development strategy in coastal areas' in late 1987. The essence of that strategy was that the coastal areas should develop in an outward-looking direction, import raw materials for home-processing but export the final products in the world market (*Renmin ribao* 23 Jan 1988; 30 Jan 1988). Despite some criticisms, such an outward-looking trade and development pattern was endorsed by the Party Politburo in February 1988.

As analysed above, underlying China's reform and open-door policies has been a change from a socialist de-linking to a socialist re-linking development strategy—re-linking China's version of socialism with market systems both domestically and internationally, or from passive to active participation in the global market economy. In the context of the strategic change, 'opening up' should be understood as opening up to market systems both domestically and internationally, not as only opening up to the outside world. Therefore, an opening economy should be taken as an economy re-linking with, or opening up to, market systems both domestically and internationally, or an economy participating actively in the global market economy, or an economy undergoing a process of accelerated marketisation at both the national and the international level, or an economy undergoing a transition to

market systems both domestically and internationally. Such a conception of opening up is applied throughout the study.

Domestic impetus to the strategic change

China's re-linking development strategy since 1978, outlined above, can be generally seen as a fundamental break from the dominant policies in the previous period; but some of the elements had already appeared before 1978. As Feuchtwang and Hussain (1983:3) noted:

> The policies which have been introduced in China since 1976—in particular since 1978—are not all new. Most have either been tried—albeit for a short period of time—or proposed before—albeit rejected and denounced.

This suggests that the strategic change in the late 1970s was, first of all, the result of domestic political and economic developments in the Republic, especially the struggles within the Communist Party.

Political and economic developments in the People's Republic of China after 1949 were largely characterised by an enthusiastic pursuit of socialism, by intraparty conflicts between idealist and realist tendencies resulting in fluctuations in economic performance, and by a shift in dominance from the idealist to the realist tendency in the late 1970s.[6] The idealists tended to insist primarily on an ideal type of communist society as the basis of their policymaking, and rely mainly on ideological motivations and political movements to achieve, as soon as possible, an utopian 'commodity-free' and 'class-free' society in China. That tendency held the upper hand in the period between 1949 and 1978 as a whole, providing the political basis for China's passive

[6] The distinction made here between idealist and realist tendencies, like any generalisation, may run the risk of oversimplification. To minimise the risk, I use the word 'tendencies', for clearly the components have been changing over time. As is well known, politicians change their positions from time to time, and that has been especially true of the Chinese politicians in the intra-party struggle

participation and socialist de-linking strategy at the time. The realists tended to insist primarily on the backward reality of the Chinese society as the basis of their policymaking, and allow a role for market mechanisms and class pluralism in China's development. This tendency emerged first in the 1950s and gained the upper hand from the late 1970s onwards, providing the main domestic impetus to China's change toward active participation and a socialist re-linking strategy. The conflicts between the two tendencies were complex, involving many issues. To highlight the conflicts, attention is concentrated on two 'winds' which swept across the whole country: the 'communist wind' and the 'revolution wind'.

'Communist wind' and resistance to it

'Communist wind' refers to an over-optimistic and over-zealous mood concerning communism and socialism (as its first stage) among mainstream Party leaders which, though also found in other periods of time, culminated in the Socialist High Tide, the Great Leap Forward and the People's Commune movements in the 1950s. That period is very important in the history of the People's Republic in that it saw the first open confrontation between idealist and realist tendencies within the Party since 1949.

In the view of mainstream Party leaders, the establishment of the People's Republic in 1949 signified the end of a 'new democratic' phase and the beginning of a socialist and communist era in the Chinese revolution. From then on, the main task of the Party was 'to transform China from an agricultural to an industrial country, from a 'new democratic' to a socialist and communist society, and eventually to

since 1949. To minimise simplification, I identify within each of the tendencies two groups—'radicals' and 'moderates', that is, radical and moderate idealists, and radical and moderate realists.

abolish classes and bring about Great Harmony (Mao Zedong 1961:1369).[7] After three years (1949–52), which saw the 'recovery of the national economy', therefore, the Party leaders began to launch large-scale movements of 'socialist transformation' and 'socialist construction' to achieve that goal.

The concrete content of socialist transformation and construction in the 1950s was to establish the planned economic system and public ownership of the means of production so as to achieve economic and social developments at a high speed. Economic planning and the socialisation of the means of production actually began well before 1953, even before 1949 in some 'liberated areas'. At that time, however, economic planning was confined either to regional experiments or to short-term expedients. Socialisation, moreover, was, basically confined to the confiscation of 'bureaucratic and comprador capital' and the purchase of existing foreign capital. 'National capitalist enterprises' and individual businesses in the cities were allowed to exist, and individual household ownership in the countryside was encouraged after 'land reform'. It was only with the First Five Year Plan for National Economic Development, proclaimed in 1953 but only published two years later, that China started its long-term planning for national economic development and accelerate ownership change. The First Five Year Plan concentrated more on social transformation than on economic development, for two of its three main tasks concerned the transformation of the means of production from private (including individual) to public ownership both in cities and in the countryside.[8] The salience accorded to ownership change in the First Five Year Plan reflected the Party's firm belief that socialist economic development in a planned way could only be based

[7] The ideal of 'great harmony' (*datong*) was a view of a perfect society perceived by Chinese intellectuals in the past. It had different meanings in different periods of Chinese history. Here Mao Zedong, from a Marxist perspective, referred to a classless Communist society.

upon public ownership of the means of production (see, for example, Mao Zedong 1955; 1967).

The transformation of ownership was originally planned, under the influence of the realist tendency, as a very long process; but it actually proceeded, under the influence of an idealist tendency, at a very high speed. The conflict between realist and idealist tendencies rose to the surface in that process, and intensified over the issue of rural collectivisation.[9] The First Five Year Plan showed a great degree of realism and pragmatism, stipulating that only one-third of peasant households would join the semi-socialist elementary Agricultural Producers Cooperatives (APCs) by 1957. Guided by the Plan, collectivisation in the countryside went on slowly and steadily. Any 'rash advance' was criticised and many 'premature cooperatives' were dissolved in the spring of 1955. That realist tendency was represented at that time mainly by Chen Yun (Vice-Premier, in charge of drafting the Plan) and Deng Zihui (Vice-Premier, in charge of rural affairs). But their 'gradualist' policy of rural collectivisation gained considerable support from other top Party leaders such as Liu Shaoqi (Vice-Chairman of the People's Republic and Chairman of the National People's Congress), Zhou Enlai (Premier), Deng Xiaoping (Vice-Premier), Li Fuchun (Vice-Premier), and Li Xiannian (Vice-Premier). Underlying the realist tendency's rural policy was the assumption that China was too backward to advance toward rural collectivisation at the high speed experienced by the Soviet Union, that rural collectivisation should be based upon the development of the productive forces (especially industrialisation), and that any attempt to eradicate rural private ownership

[8] The third task was to lay down the foundation of socialist industrialisation by establishing hundreds of construction projects with assistance from the Soviet Union.

[9] Basically, due to the confiscation of 'bureaucrat and comprador capital', public ownership had been predominant in industry, transportation, commerce and finance by the end of 1952. In the countryside, however, there were only a few 'semi-socialist' elementary cooperatives; individual household

before the 'necessary conditions' were ready was a 'utopian conception of agricultural socialism' (see, for example, Deng Zihui 1954; Liu Shaoqi 1951a; 1951b; 1956). That assumption and the policy based upon it was, however, increasingly challenged by a rising idealistic tendency within the Communist Party represented mainly by Mao Zedong (Chairman of the Party).

Beginning from July 1955, Mao Zedong made a series of speeches and comments to attack the realists' policy of gradual rural collectivisation, and called for a 'socialist high tide' in China's countryside. Underlying Mao Zedong's argument was the assumption that rural collectivisation should advance side-by-side with industrialisation or even precede it, as had occurred in the Soviet Union, that private ownership should be eliminated through collectivisation so as to ensure an ideal type of socialist equality, that China's backwardness was not an obstacle but an impetus to rural collectivisation since 'poverty gives rise to a desire for change' toward socialism, and that rural collectivisation could be completed very quickly through mobilising this desire among the masses to the effect that China could reach communism in the near future (Mao Zedong 1967:329–34; 1955; see also Hu Hua 1985:102). By that time (1955), Mao Zedong had actually begun to be overwhelmed by an over-optimistic and over-zealous mood toward communism, saying that 'fifty years from now, a communist China will emerge' (Joint Publications Research Service 1974:26, 210–1, 394; see also Gurley 1976:228). He criticised realists as 'rightist conservatives', 'tottering along like a woman with bound feet, always complaining that others are going too fast' (Mao Zedong 1967; 1955). Under the influence of Mao Zedong, the idealist tendency gained the upper hand within the

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ownership prevailed. Rural collectivisation, therefore, became the focus of China's transformation of ownership, and thus the focus of political conflicts in the 1950s.

Party and the tempo of rural collectivisation was speeded up.[10] By the end of 1956, rural collectivisation was claimed to be basically completed: 87.8 per cent of China's peasant households had joined socialist advanced APCs, and most of the rest had joined semi-socialist elementary APCs. The socialist transformation of handicrafts and the remainder of private industry and commerce, influenced by the 'socialist high tide' in the countryside, was also claimed to have been basically completed by that time. 92.2 per cent of people engaged in handicrafts joined the 'handicraft producers cooperatives', 99 per cent of private industrialists and 85 per cent of private merchants joined joint state-private enterprises (Yang Qinwei, Chen Rongxun, and Yuan Zhishun 1990:47–50).

The 'socialist high tide' of 1955–1956 was the first open manifestation of an over-optimistic and over-zealous mood within the Party, a prelude to the 'communist wind' in China. It swept across the countryside in such a hasty manner that many peasants were forced to join the APCs, surrender their properties without due compensation, and invest their money against their will. Many APCs were short of experienced cadres to do routine work such as planning and accounting. Serious management problems ensued. Industrial crops and subsidiary occupations were neglected, and the supply of raw materials for industry and export was severely affected (*Xinhua* 19 June 1956; *Dagongbao* 7 May 1956; Deng Zihui 1956; Chang 1975:22–3). As a result, the rash advance met resistance among both peasants and some Party members. Peasants, under threat, slaughtered their livestock and draught animals, withdrew their savings from the banks, concealed their money and other properties, and disobeyed the APCs' orders and rules (*Renmin ribao* 18 Dec 1955; 17

[10] After July 1955, many top Party leaders who had been in favour of the gradualist policy changed their position to support Mao Zedong's radical policy of rural collectivisation. The plan for rural collectivisation was modified several times in that period; each time, the planned date for completion was advanced (see Chang 1975).

May 1956; 19 April 1957; *Xinhua* 26 Dec 1955; 19 June 1956; Chang 1975:22). The realist tendency within the Party criticised the over-optimistic and over-zealous mood as 'reckless advance' in socialist development, and attacked those who attempted to fulfil socialist development programs 'with a single stroke in two or three months' (*Renmin ribao* 20 June 1956; *Xinhua* 4 April 1956). The realists' counter-attack was so strong that it even gained the upper hand temporarily at the Communist Party's Eighth Congress in September 1956, which 'was characterised by realism and moderation' (Chang 1975:30).[11] To the 'idealists', however, the rapid completion of the socialist transformation during the 'socialist high tide' doubtless proved their radical approach to socialist development to be correct. Resistance and criticism were merely the expressions of the 'spontaneous force of capitalism' among peasants or the 'rightist conservatism' within the Party. To defeat them and to promote socialist development, more radical mass movements were needed.[12]

In 1958, 'idealists', headed by Mao Zedong, initiated the Great Leap Forward and the People's Commune movement. A 'communist wind' swept over all the country, city and countryside alike. The over-optimistic and over-zealous mood toward communism underlying the movements was partly inspired by the Soviet Union's launch of *Sputnik* on 4 October 1957, which signified, in the idealists' eyes, that the balance of forces in the world had shifted in favour of what then characterised the 'socialist camp'. In November 1957, Mao Zedong stated with certainty, in Moscow, that 'the East wind is prevailing over the West wind' and that China would surpass Britain in the output of steel, iron and other important industrial products in about fifteen years (Chang 1975:39; Yang Qinwen, Chen Rongxun, and Yuan

[11] The 'realist tendency' at the conference was demonstrated in Liu Shaoqi's 'Political Report', Zhou Enlai's 'Report on the Proposal for the Second Five Year Plan', Chen Yun's, Li Xiannian's and Bo Yibo's speeches and various documents passed by the Congress.

Zhishun 1990:82). At the Second Session of the Party's Eighth Congress in May 1958, in which the idealist tendency gained the upper hand, some radical idealists even claimed that it was possible to overtake Britain in about five years, and the United States in about fifteen years (Yang Qinwen, Chen Rongxun, and Yuan Zhishun 1990:84). After the Second Session of the Congress, the Great Leap and people's commune movements began to gain momentum.

The objective of the Great Leap Forward was outlined in the Party's new 'General Line for Socialist Construction', proposed by Mao Zedong and passed by the Second Session, namely, 'go all out, aim high, and achieve greater, faster, better and more economical results in building socialism'. The core of the General Line was to achieve 'high speed' in socialist development through mobilising the socialist consciousness of the masses (Yang Qinwen, Chen Rongxun, and Yuan Zhishun 1990:83–4). The Great Leap Forward was aimed at achieving rapid socialist development in the forces of production. Many unrealistic targets were set for industry and agriculture, such as doubling the output of steel, and increasing the output of agricultural products many times in the single year of 1958. The People's Communes were designed to achieve socialist development in relations of production in order to prepare for the transition to communism in the near future. The Party's 'Resolution on the Establishment of People's Communes in Rural Areas' (*Renmin ribao* 10 Sept 1958) predicted that 'the attainment of communism in China is no longer a remote future event. We should actively use the form of the people's communes to explore the practical road of transition to communism'. Actually, at the peak of the Great Leap, the over-optimistic and over-zealous mood toward

[12] Mao Zedong, on several occasions, later openly blamed the realists for their move against 'reckless-advance' (Yang Qinwei, Chen Rongxun, and Yuan Zhishun 1990:81–3).

communism was so strong that the Party's newspaper *Renmin ribao* (6 Aug 1958) even confidently proclaimed:

> China is moving forward at the speed of space flight. Not long ago, peasants in their fifties were worried that they might not last long enough to see the good days of communism. Now even octogenarians and nonagenarians firmly believe that they will enjoy the happiness of communism. Indeed, some old men believe that they are already living in the communist age.

Such an over-optimistic and over-zealous mood stirred up the 'communist wind' during the Great Leap and People's Commune movements.

The consequences of the movements were disastrous. In pursuit of high production targets, the overall economic growth rate did rise (TOVS rose from 213.8 billion *yuan* in 1958 to 267.9 billion *yuan* in 1960),[13] but the improved figures masked considerable degrees of statistical exaggeration and sectoral imbalances. From 1958 to 1960, for instance, the total value of output of industry rose from 108.3 to 163.7 billion *yuan*, while the total value of output of agriculture fell from 56.6 to 45.7 billion *yuan*; the total value of output of heavy industry rose from 58 to 109 billion *yuan*, whereas the total value of output of light industry rose only from 50.3 to 54.7 billion *yuan*; the accumulation ratio rose from 23.9 to 39.6 per cent, while the consumption ratio fell from 66.1 to 60.4 per cent (Ma Yuping and Huang Yuchong 1989:573–98).

The negative effect of the imbalanced economic development was later clearly demonstrated in the two years immediately following the Great Leap: from 1960 to 1962, TOVS fell from 267 to 180 billion *yuan*, national income fell from 120 to 92.4 billion *yuan*, per capita income fell from 183 to 139 *yuan*, and the value of imports and exports fell from 12.8 to 8.1 billion *yuan* (Ma Yuping and Huang Yuchong

[13] Total output value of society. China did not have statistics of GNP or GDP before 1978, so we have to use TOVS instead (*Statistical Yearbook of China 1984–1993*).

1989:573–98).[14] In pursuit of the transition to communism, peasants' properties such as private plots, tools, cattle, houses and trees were all transferred to communes without due compensation. Commodity relations and rural markets were increasingly replaced by a supply system (including food and clothes). Peasants' enthusiasm for production was dampened, agricultural production fell, peasants suffered from starvation and increased their resistance (*New Construction* 9, 1958; *Renmin ribao* 19 Sept 1958; Chang 1975:98; Yang Qinwei, Chen Rongxun, and Yuan Zhishun 1990:87–90). The situation was serious and the intraparty conflict between realist and idealist tendencies intensified once again.

The Great Leap and the People's Communes movements were initiated by the idealist tendency headed by Mao Zedong, but at the climax of the movements in 1958 most Party leaders were overwhelmed by an over-optimistic and over-zealous mood, even those formerly in favour of the realist tendency. As Joseph (1984:78) noted:

> It was not as if Deng Xiaoping, Liu Shaoqi, Zhou Enlai, and others could claim to be entirely blameless in the formulation of the Great Leap policy; they, too, had lent varying degrees of vocal and organisational support to the launching of the movement and had thus contributed to the radicalisation of the political environment that had made the excesses of the 'high tide' possible.

As the disastrous consequences became visible, however, the realist tendency arose once again, and strengthened its position within the Party. As early as late 1958, Deng Xiaoping, Hu Qiaomu and others began to criticise radical idealists such as Zhang Chunqiao and Chen Boda for their proposals to abolish the 'bourgeois right' expressed in the salary system, commodity exchange, and money in order to prepare for the transition to communism.[15] The critique was even accepted at that time by

[14] The decrease in gross imports and exports was obviously aggravated by China's radical revolutionary foreign policy, especially the increasing ideological conflict with the Soviet Union.

[15] For Zhang Chunqiao's and Chen Boda's propositions, see Zhang Chunqiao (1958) and Chen Boda (1958). For Deng Xiaoping's and others' critique of the propositions, see *Renmin ribao* (17 Oct 1958); *Current Background* (537:5–37); Joseph (1984:66–7).

Mao Zedong who became more 'moderate' in his idealist thinking as the disastrous consequences became apparent.[16]

The critique of the Great Leap and the People's Communes culminated at the Communist Party's Lushan Conference in July 1959, when Peng Dehuai (Vice-Premier and Minister of Defence) and others blamed idealists for attempting to 'jump into communism in one step', thus committing the error of 'petty-bourgeois fanaticism' (Peng Dehuai 1959). Although the show-down at Lushan ended with the failure of the so-called 'Peng Dehuai Anti-Party Group' and a 'campaign against rightist opportunism' ensued, the idealist tendency suffered heavily and Mao Zedong retreated to the 'second front'—withdrawing from active participation in the policymaking process. After a short-lived 'Second Great Leap Forward' in 1959, the realist tendency achieved influence in 1961, and gained the upper hand at the 'Seven Thousand Cadres Conference' in Beijing in January 1962. Represented by those on the 'first front', such as Liu Shaoqi, Deng Xiaoping, Zhou Enlai, Chen Yun, Deng Zihui, Peng Zhen, Bo Yibo, Li Xiannian and Li Fuchun, the realist tendency put into place many 'pragmatic' policies to save the imperilled national economy. High production targets were cut, imbalances were adjusted, market mechanisms and material incentives were emphasised, private farming in the form of the 'production responsibility system' was encouraged, and a more moderate foreign policy was adopted. Though confined within the limits set by Mao Zedong, those policies gained increasing support within the Party and contributed significantly to China's post-1962 economic recovery. From 1962 to 1966, TOVS increased from 180 to 306.2 billion

[16] The 'deradicalisation' of Mao Zedong's idealist thinking was demonstrated in his speeches and comments at the Party's First Zhengzhou Conference (2–10 Nov 1958), the Wuchang Conference (21–7 Nov 1958), the Sixth Plenum of the Eighth Central Committee (28 Nov –10 Dec 1958), and the Second Zhengzhou Conference (late Feb–early March 1958). At these conferences, he began to criticise the 'communist wind'. See Yang Qinwei, Chen Rongxun, and Yuan Zhishun (1990:91–5); Chang (1975:101–5); Joseph (1984:67–72).

yuan, the output value of agriculture from 58.4 to 91 billion *yuan*, the output value of industry from 92 to 162.4 billion *yuan*, national income from 92.4 to 158.6 billion *yuan*, per capita income from 139 to 216 *yuan*, and the total value of imports and exports from 8.09 to 12.71 billion *yuan* (Ma Yuping and Huang Yuchong 1989:573–98). The economic recovery continued until 1966, when the idealist tendency fought back and stirred up a turbulent 'revolution wind'.

'Revolution wind' and resistance to it

'Revolution wind' refers to a fanatic and over-enthusiastic mood towards revolution aimed at containing or even eradicating all non-proletarian classes which, though found in other periods of time, culminated in the Great Proletarian Cultural Revolution between 1966 and 1976. That Cultural Revolution pushed intraparty conflicts between idealist and realist tendencies to a climax, and cleared the way for the shift in power from the former to the latter in 1978.

The concept 'revolution' occupied a prominent place in the Party's ideology; but its meaning and focus changed over time. In the late 1950s, it mainly meant an 'uninterrupted revolution' (*buduan geming lun*) which, as Brugger (1989b:2) noted, [17] saw

> progress within a socialist system proceeding in a wave-like manner through the ceaseless development and 'correct handling' of social contradictions. Class struggle was not central to that formation—a more basic term being the dichotomy of 'people' and 'enemy' seen as behavioural categories.

This conception reflected a dominant view within the Party at that time that the prime task under socialism is not class struggle but socialist construction, for 'large-scale and turbulent class struggles of the masses characteristic of the previous revolutionary

[17] For a detailed analysis, see Young and Woodward (1978:915–23); Joseph (1984:87); see also Schram (1973:94).

periods have in the main ended' (Mao Zedong 1977:389). That view was shared by both idealists and realists, though they differed, as shown above, on how to achieve socialist construction. It was precisely their disputes over that issue during the Great Leap and People's Communes movements which gave rise to a fanatic and over-enthusiastic mood concerning class struggle and revolution. That mood underlay the 'revolution wind', and shifted the focus of revolution to class struggle in the 1960s.

Although the mainstream Party leadership, headed by Mao Zedong, often mentioned 'class struggle between the proletariat and bourgeoisie' and sometimes even described it as the 'primary contradiction' under socialism in the 1950s, they neither developed a systematic theory of class struggle under socialism which took into consideration intraparty conflicts, nor intended to launch a revolution to deal with it at the time. The intensified conflict between idealist and realist tendencies at the Lushan Conference in 1959 and the gradual increase in influence of the realist tendency in the early 1960s, however, led idealists to the conclusion that the strongest resistance to their ideal type of communism/socialism came from within the Communist Party itself, and that this resistance was the main expression of the 'struggle between proletariat and bourgeoisie, between capitalism and socialism'. They felt that the resistance must be overcome to ensure the communist/socialist direction of China's development.

Immediately after the Lushan Conference, Mao Zedong (1959) stated: 'the struggle at Lushan was a class struggle, a continuation of the life-and-death struggle between the two antagonistic classes of bourgeoisie and proletariat in the process of socialist revolution in the last ten years'. The 'Peng Dehuai Group' was denounced as representing an 'anti-socialist right-opportunist line', and the 'line struggle' within the Party was related to the class struggle in society at large. At the Tenth Plenum of the

Eighth Conference in September 1962, Mao Zedong further criticised the realists' policy to promote the 'production responsibility system' as a capitalist and revisionist 'tendency toward individual farming', and demanded that the Party should 'never forget the class struggle'. To 'take class struggle as the key link', three campaigns were launched by Mao Zedong in the period between 1963 and 1966. The first was the Socialist Education Campaign to fight against 'capitalist forces' in the countryside and revisionism within the Party in order to prevent 'capitalist restoration'. Here the realist tendency was criticised and many radical slogans were posed by Mao Zedong such as: 'once class struggle is grasped, miracles are possible'; and 'the focal target of the campaign is capitalist roaders in power within the party'.[18] The second was a political movement to fight against capitalist and revisionist influences in ideological and cultural spheres, in which many academics and their supporters in the Party were blamed for their 'anti-socialist, anti-Marxist and anti-Party' academic works and political behaviour. The third was a theoretical debate aimed at 'Soviet revisionism', headed by the 'Khrushchev Group', in which 'international revisionism' was criticised in order to attack capitalist and revisionist tendencies at home (Chang 1975:173; see also Liao Kuangsheng 1984:189–207).

Due to the skilful resistance of the realist tendency, the three campaigns did not achieve the main goal which Mao Zedong and other idealists wanted them to, that is, purging the Chinese revisionists at the top of the Party—'capitalist roaders in power'.[19] Powerful resistance from within the Party reinforced the idealists' judgement about the class struggle under socialism, and convinced them that a large-scale revolution, characterised by intensive class struggle, was needed to safeguard

[18] As for Mao Zedong's statements about class struggle in this period, see Yang Qinwen, Chen Rongxun and Yuan Zhishun (1990:126–8).
[19] As for the resistance from the 'realists', see Brugger (1977:38–40); Chang (1975:143, 158–71); Yang Qinwen, Chen Rongxun, and Yuan Zhishun (1990:126–57).

socialism. Against that background, the Cultural Revolution occurred in 1966. To deepen our understanding, Chang's insightful analysis, back in the 1970s, is worth quoting at length here:

> The GPCR began when Mao decided it was necessary to oust some of his 'comrades-in-arms'. As pointed out earlier, Mao's control over the party was weakened substantially when his grandiose Great Leap and commune programs failed, sending him to the political background as other Party leaders came to the fore to save China from profound economic crisis. A set of pragmatic policies sponsored by Liu Shaoqi and others extricated China from the crisis by the fall of 1962, but Mao was alarmed by Liu's leadership, which, in his view, was leading China to the path of revisionism and 'restoration of capitalism'. Despite Mao's persistent efforts to reimpose his policies and assert his leadership, he found himself unable to make the party responsive to his will, for other leaders who controlled the party organisations had used sabotage, obstruction, and passive resistance to frustrate his goals. Mao became convinced that if he were to control the direction of the Chinese Revolution and carry out his own revolutionary vision, he would have to remove from positions of authority those leaders 'who are taking the capitalist road'(Chang 1975:147).

The connection between the launching of the Cultural Revolution and intraparty conflicts in the previous period was clearly demonstrated in Mao Zedong's 'Bombard the Headquarters: my first big character poster', written before the Eleventh Plenum of the Eighth Conference in October 1966. In that poster, he indirectly blamed Liu Shaoqi, Deng Xiaoping and others for their 'rightist errors' in the early 1960s (*Renmin ribao* 31 July 1967). That Plenum officially started the Cultural Revolution.

Instigated by a fanatical revolutionary mood geared for class struggle at the height of the Cultural Revolution in 1967, a noticeable change occurred in the meaning of revolution in dominant Party ideology. 'Uninterrupted revolution' (*buduan geming lun*) was replaced by 'continuous revolution' (*jixu geming lun*) (see, for instance, *Renmin ribao* 18 May 1967; 6 Nov 1967). Radical idealists such as Chen Boda and Yao Wenyuan, on the basis of Mao Zedong's statements about class struggle since the late 1950s, developed a synthetic theory of class struggle and revolution under socialism, and formally defined it as 'the theory of continuous

revolution under the dictatorship of the proletariat' (*Renmin ribao* 6 Nov 1967). Underlying the theory was the assumption that the struggle between bourgeoisie and proletariat and the struggle between capitalism and socialism continue to exist in socialist society. The danger of capitalist restoration remains under socialism. Class struggles inevitably find expressions within the Party to the point that 'capitalist roaders in power' are the representatives of the bourgeoisie in society. Thus, proletarians must continue revolution characterised by class struggle after seizing national power in order to exercise all-round dictatorship over the bourgeoisie, and repudiate revisionists' attempt to restore capitalism (Yang Qinwen, Chen Rongxun, and Yuan Zhishun 1990:158–9; *Renmin ribao* 6 Nov 1967). The theory of 'continuous revolution' was the cornerstone of the theoretical framework of the idealist tendency during the Cultural Revolution, and the catalyst of the 'revolution wind' which swept all over China over that period.

Under the influence of 'the theory of continuous revolution', realist policies which had proven to be so successful in the post-1962 economic recovery were denounced as capitalist 'three freedoms and one guarantee' (that is, plots for private use, free markets, enterprises with sole responsibility for their own profit or loss, and fixing output quotas on a household basis) and revisionist 'three reconciliations and one reduction' (that is, making peace with imperialists, reactionaries and revisionists, and reducing aid to the world revolutionary movements). Tolerance towards market mechanisms and class pluralism was replaced by an attempt at 'all-round' dictatorship of proletariat both domestically and internationally.

The Cultural Revolution was officially said to last a decade (1966–76), but its 'high tide' was the first two years or so (late 1966–late 1968) in which the 'revolution wind' blew the hardest. The disastrous effects of the Cultural Revolution on China's

development were much greater than those of the Great Leap. Class relations and social relations were increasingly strained, and domestic order was completely destroyed. Government and Party officials at various levels were criticised as 'revisionists', and intellectuals were denounced as 'reactionary authoritative academics'. Red Guards could 'doubt everything and overthrow everything', and they often resorted to violence. Workers and peasants were encouraged to despise authorities, and they tended to ignore all rules and disciplines. Factories, shops and public buildings were damaged, schools and universities were closed, and traditional cultural items such as books, painting, antiques and statues were destroyed as 'poisonous weeds' of exploitative classes.

At that time, relations with foreign countries were also extremely strained. Radicalisation of domestic politics resulted in an anti-foreigner mood. Not only was the Chinese Ministry of Foreign Affairs invaded but the British Embassy in Beijing was set on fire by Red Guards. Not only was the Western 'capitalist' culture totally negated but the Eastern European 'revisionist' culture was also denounced. Those who had relatives in foreign countries were looked down upon, and those who had ordinary communications with foreigners were suspected of being 'foreign spies'. Such anti-foreignism isolated China from almost all countries in the world, except Albania which pursued a similar radical revolutionary policy over that period. Although China improved its diplomatic relations with the United States and other 'capitalist' countries in the early 1970s in order to contain the Soviet Union, ideological hostility toward these countries still remained strong and economic relations with them were very limited.

Under such a wild 'revolution wind', the national economy suffered heavily. In the 'high tide' of the Cultural Revolution in the period from 1966 to 1968, TOVS

fell from 306.2 to 264.8 billion *yuan*, national income from 158.6 to 141.5 billion *yuan*, and foreign trade from 12.71 to 10.85 billion *yuan*. Although the national economy started to pick up after 1969, this was mainly, as shown soon, attributed to the realists' efforts to save the economy. Despite the gradual recovery after 1969, the period between 1966 and 1976 as a whole still saw a fall in the growth rate of TOVS by 7.5 percentage points, as compared with the previous three years (1963–65) in which the realist tendency prevailed (Ma Yuping and Huang Yuchong 1989:591).

Possibly because the damage was greater, the 'revolution wind' met much stronger resistance from the realist tendency than the 'communist wind'. The Cultural Revolution was openly and extensively resisted by the realist tendency right from its beginning in 1966, or even in 1965 when it was in the making (see, for instance, Brugger 1977:281–316; Chang 1975:147–71). The initial resistance was crushed in the 'high tide' of the Cultural Revolution, when many realists were denounced as 'capitalist roaders in power', and either dismissed from office or reduced to a low rank. As the 'high tide' wound down and the disastrous consequences became apparent, however, the realist tendency began to revive under the aegis of Zhou Enlai in the early 1970s.[20] As Bucknall (1989:4) noted:

> The power of the right-wing of the party began to increase after 1969. Zhou Enlai had been under pressure and threat from the ultra-left, but his skilful defence of the administration and the economy, which he had protected as far as he was able, began to bear fruit. More people began to see that the economy had to be promoted rather than allowed to wither, as tended to happen when the ultra-left placed class struggle in prime place, rather than accepting 'business as usual'.

Realists' efforts to reestablish domestic order, to relax tense foreign relations (especially with the United States and other Western countries), and to recover the

[20] It was said that, due to Zhou Enlai's efforts, 'one-half to two-thirds of the 366 ministers, vice ministers, heads and deputy heads of central commissions kept their posts from 1966 to 1968' (Brugger and Reglar 1994:40), and many 'overthrown' senior officials were rehabilitated after 1969 (Yang Qinwei, Chen Rongxun, and Yuan Zhishun 1990:171–3).

national economy even gained support from Mao Zedong who had become more 'moderate' by that time, but they were challenged by a radical idealist group headed by Lin Biao (Vice-chairman of the Party and Minister of Defence).[21] That conflict ended with the collapse of the Lin Biao Group on 13 September 1971, and the increase in power of the realist tendency headed by Zhou Enlai and Ye Jianying at that time.[22]

After the '9.13 Event' (signifying the Lin Biao coup), many realistic and pragmatic policies and measures were put into place by the realist tendency, though within the limits set by Mao Zedong. Senior government and Party officials began to be rehabilitated (including Deng Xiaoping in 1973 who later became a key figure in the realist tendency). Domestic order and rules were restored, foreign relations were relaxed (the People's Republic replaced Taiwan as a member of the United Nations in 1971, started to normalise relations with the United States and Japan in 1972, and introduced technology from Western countries in 1972–73), and economic development and modernisation were emphasised. The realist tendency was further strengthened in 1975 when Deng Xiaoping took charge of the day-to-day work of the government. Due to realists' efforts, the national economy began to pick up after 1969, especially in 1975. From 1969 to 1975, for example, TOVS increased from 318.4 to 537.9 billion *yuan*, national income from 161.7 to 250 billion *yuan*, per capita income from 203 to 273 *yuan*, and the value of imports and exports from 10.7 to 29 billion *yuan* (Ma Yuping and Huang Yuchong 1989:573–98). After suffering a set-back in early 1976, when Deng Xiaoping was dismissed from office once again by Mao Zedong, the realist tendency purged a radical idealist group called the 'Gang of

[21] It was said that the Lin Biao Group especially opposed the realists' foreign policy which proposed a *détente* with the United States. See, for example, O'Leary (1980); Camilleri (1980).

Four' immediately after Mao Zedong's death in the autumn of 1976, and began to defeat a remaining moderate idealist group headed by Hua Guofeng at the famous Third Plenum of the Eleventh Congress in late 1978.[23] From then on, the realist tendency began to dominate the Party, and initiated the significant strategic change analysed in the preceding section.

The victory of the realist over the idealist tendency, as well as the significant strategic change initiated by the former in the late 1970s, was a logical result of China's political and economic developments since 1949. It was logical in the sense that, although the overall development performance of the People's Republic had been outstanding since 1949, the periods in which the idealist tendency rose in influence demonstrated a less efficient, less successful, and sometimes even disastrous economic performance (for example, the period between 1958 and 1962, and the late 1960s), whereas the periods in which the realist tendency rose in influence demonstrated a more efficient and more successful economic performance (for example, the period between 1963 and 1966, and the early 1970s). The fluctuations in development performance not only proved to the Chinese people that the realist tendency could better cope with China's reality, could better deal with China's development problems, and therefore was more desirable, but also provided the rationale for the realist tendency to discredit the idealist tendency and initiate the strategic change from the late 1970s onwards. It should not come as a surprise,

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[22] After the '9.13 Event', in which Lin Biao died escaping abroad by air, Zhou Enlai began to take charge of the day-to-day work of the Central Committee of the Party and Ye Jianying took charge of the Central Military Commission (Yang Qinwei, Chen Rongxun, and Yuan Zhishun 1990:170)

[23] The 'Gang of Four' included Jiang Qing (Mao Zedong's wife, member of the Politburo), Wang Hongwen (Vice Chairman of the Party), Zhang Chunqiao (member of the Standing Committee of the Politburo) and Yao Wenyuan (member of the Politburo). Hua Guofeng became Chairman of the Party after Mao Zedong's death and remained in the post formally until 1982. He joined hands with realists to beat the 'Gang of Four' in late 1976; but he basically maintained a moderate idealist way of thinking and insisted on what was called 'whateverism'—upholding 'whatever Mao Zedong said'. His influence was significantly shaken after the Third Plenum in 1978.

therefore, when it is found that Barnett (1970:3–4) predicted that outcome more than two decades ago:

> As a matter of fact, I think it is highly possible that post-Mao leadership will move almost precisely in the direction that Mao has feared: it will move away from the idea of great, utopian, apocalyptic, grand strategies; away from the radical revolutionary policies that Mao has tried to promote the last few years. Of necessity, I think it will move toward a somewhat more realistic, pragmatic policy designed simply to cope with the immediate and very pressing problems that the country faces and will face. There will be concern about the need to restore a larger degree of order, a larger degree of unity, a larger degree of purpose, to get the country back on the course of rational development. I believe China will move in these directions.

It is exactly the pursuit of 'rational development' that has underlain the post-Mao realist leadership's re-linking strategy since 1978.

International impetus to the strategic change

China's radical change from socialist de-linking to a socialist re-linking development strategy occurred in a period of time which witnessed the most significant and historic events in the contemporary world. To identify the international impetuses behind China's strategic change, however, we need to focus attention on two broad trends: increasing global integration and increasing uneven development. As a main expression of the coexistence of convergence and divergence analysed in Chapter 2, the two trends ran parallel, though in opposite directions. They exerted, however, equally strong pressure upon China, and played an equally important role in promoting China's strategic change.

Increasing global integration

Global integration is, in the terminology of the diffusion/modernisation paradigm, no doubt a trend towards convergence. It is, however, convergence to what? This has

long been an issue of dispute. Inspired by the tremendous success of the Industrial Revolution, most scholars in the nineteenth century, from Comte to Hegel and Marx, implicitly or explicitly shared a view that the contemporary world was converging into a single system exemplified by the advanced Western capitalist industrial countries, though they differed over the future of the system. Inspired by the success of socialist revolutions after World War One (in the Soviet Union) and World War Two (in Eastern European countries, China, North Korea, Vietnam, and Cuba), a notion became popular (at least in the East) that the contemporary world was converging into a single system specified by socialist countries. But with the collapse of the Soviet Union and the set-backs suffered by other socialist countries in recent years, one saw once again the notion of convergence towards liberal capitalism or, as Fukuyama (1992) said, the 'end of history'. How long are we to remain trapped in such an ideological cage? The ideological dichotomy between 'capitalist' and 'socialist' global integration must be transcended before we can obtain greater insights into the accelerated globalisation in the contemporary world.

Various terms have been used to describe the global integration process in recent years, such as 'biased integration', 'asymmetric integration', 'negative integration', 'positive integration', 'international integration', 'worldwide integration' (see, for instance, Ethier 1988:523; Robson 1984:2; El-Agraa 1989:2). Evidence shows, however, that market integration underlies, directly or indirectly, all phenomena related to globalisation. This is so obvious that some even concluded: 'globalisation denotes the increasing interdependence of international markets. It means that markets, industries, and enterprises transcend national boundaries' (Bureau of Industry Economics 1989:xiii). The teleological process of market integration is simple. Peoples have been brought increasingly into an increasingly

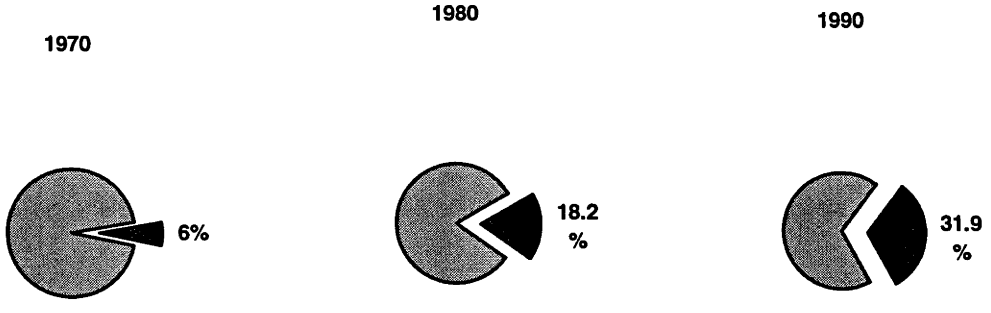
'free' exchange system which connects them economically, politically, institutionally and culturally. As such, global integration originated in ancient times, developed on a worldwide scale after the discovery of the 'new world' at the end of the fifteenth century, accelerated after the Industrial Revolution in the eighteenth century, and came into its own with the new technological revolution in the postwar period. Dimensions of the increased global market integration in the postwar period were manifold, but only three are illustrated here.

Economic integration. One of the most marked developments in global economic integration since the Second World War has been the unprecedented expansion of the international commodity market, expressed mainly in the enormous increase in international trade. According to World Bank's estimate, the growth of international trade between 1950 and 1980 was 'the highest recorded in history', and international trade grew faster than world output throughout the postwar period. Between 1950 and 1988, for instance, the average annual growth rate of international trade was about six per cent, whereas the average annual growth rate of world GDP was only about four per cent (World Bank 1991:9). In absolute terms, the growth of international trade was even more impressive. The volume of world imports increased, for instance, by a multiple of almost five between 1960 and 1990 (Clark et al 1993:12). The massive growth of international trade indicates that nations in the contemporary world have been increasingly connected to each other by commodity relations.

The integration of the global economy through international trade has been reinforced by the internationalisation of production and finance. The international flow of capital in the form of foreign direct investment increased by a multiple of almost four between 1960 and 1988 (World Bank 1991b:9). The international flow of

capital in other forms, such as loans, securities, and bonds, also grew very fast. As a result of international capital flows, the share of assets of international banks in the world GDP increased markedly (see Figure 1). Promoted by the internationalisation of production and finance, international markets of productive resources such as capital, labour, and information expanded along with the growth of the international commodity market. Multinational and transnational enterprises have been the primary force behind the economic integration of international markets, and the control of national governments over their economies has been rapidly diminishing.[24] The whole world has been so closely connected economically in a single exchange system after the Second World War that some even announced 'the end of geography' (O'Brien 1992).

Figure 1 **Share of assets of international banks in world GDP, 1970–1989** (%)



Source: the World Bank (1991b:12–4).

[24] By the end of 1980s, 500 of the largest multinational and transnational enterprises had accounted for more than one-half of world production, revenue, and investment. They received at least 40 per cent of their revenue from international operations (Matsuura 1991:13–5).

Institutional integration. Increased economic integration through the expansion of international markets demanded increasing institutional integration. After the Second World War, the growth of international institutions grew much faster than before. Between 1940 and 1985, for instance, the number of international institutions (including both governmental and nongovernmental institutions) increased by a factor of six (Hughes 1991:219). These international institutions, especially the United Nations (UN), the International Monetary Fund (IMF), the World Bank, and the General Agreements on Tariffs and Trade (GATT) or, later on, the World Trade Organisation (WTO), played an increasingly crucial role in international economic, political, cultural, and environmental cooperation. The whole world has been so closely connected together institutionally in addressing problems that affect mankind as a whole that there emerged a 'planetary consciousness', expressed in such concepts as 'Spaceship Earth' and the 'Global Commons' (Hettne 1990:114).

In addition to institutional integration at the global level, there has been increasing regional institutional integration. The most successful examples were found in the developed world, such as the Organisation for Economic Cooperation and Development (OECD), the European Community (EC), the European Union (EU), and the European Free Trade Association (EFTA). In the developing world, there were also examples of regional integration, such as the Association of South–East Asian Nations (ASEAN), the Organisation of Petroleum Exporting Countries (OPEC). In recent years, efforts were made to connect the two worlds together, as shown by the Northern American Free Trade Area (NAFTA) and the Asia Pacific Economic Cooperation Association (APECA). From a long-term perspective, regional institutional integration was part of the globalisation process, and reinforced the sense of interdependence among nations (Kym and Richard 1993:xxii).

Systemic integration. Increased integration among different economic systems has been another expression and result of market expansion in the postwar period. The core of this integration has been the increased incorporation of various forms of the planned economic system in Eastern socialist countries into the global market system. An indicator was the marked increase in East–West trade. Between 1971 and 1981, for instance, gross imports and exports in East–West Trade increased by a multiple of almost eight. By the early 1980s, East–West trade had accounted for more than 45 per cent of the total Eastern trade (Bunce 1989:243; Ethier 1988:541). Along with market-oriented reforms in Eastern countries, systemic integration accelerated in recent years.

Systemic integration, of course, fluctuated according to political and ideological conflicts between the 'socialist' East and the 'capitalist' West. Governments in the East were cautious of Western 'capitalist' influence and were hesitant as to how far they might go in their relationship with the West; their counterparts in the West were worried about the consequences of transferring high technology and were critical of human right issues in the East; and both sides engaged in a new version of 'Cold War' and kept an eye on the strategic balance of international powers. However, the trend towards integration was so strong that it would eventually overcome and transcend political and ideological constraints. As Dallago et al (1992: 1) noted: 'there are economic and social-structural tendencies in both capitalist and socialist societies and economies which result in convergence towards one uniform system'.

The 'uniform system', mentioned here, could be nothing but a global market system. As argued above, the increased worldwide expansion of the market system

has been the driving force behind all forms of the postwar integration. The currently popular terms such as globalisation, internationalisation, economic integration, and convergence must be understood in this sense.

Increasing uneven development

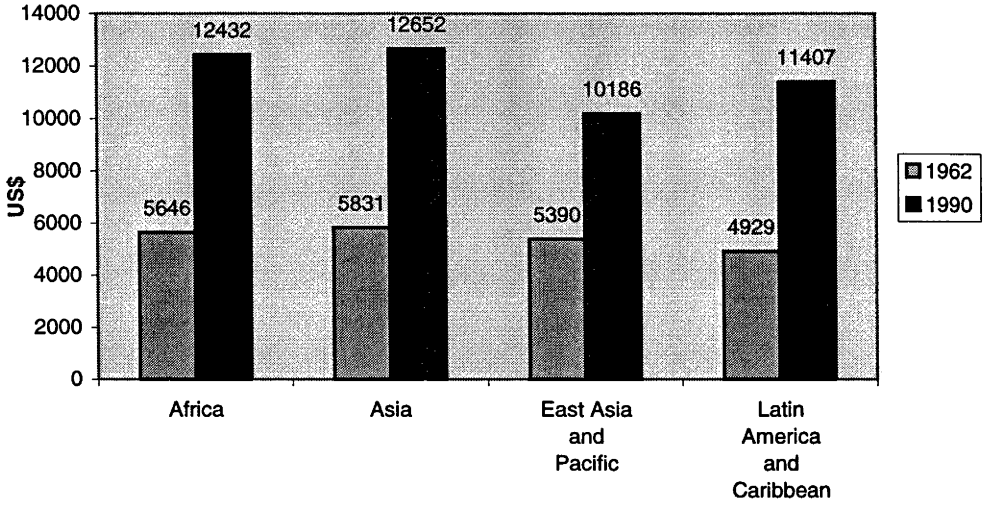
Increased global market integration led to unprecedented economic growth in the postwar period (World Bank 1987; 1988; 1989; 1990). This, however, was only one side of the coin. The other side revealed a picture of increasing uneven development, or increasing divergence between countries. The following dimensions of increasing uneven development were most alarming.

Uneven development between developed and developing countries. This uneven development was often referred to, in development literature, as the 'development gap'. Most scholars agreed that the gap has been increasingly widening since the Second World War, and there was growing evidence in support of this view (see, for instance, Ward, Runnalls, and D'Anjou 1971; Todaro 1989; Hogendorn 1992; Cole 1981; Seligson and Passé-Smith 1993; World Bank 1987; 1988; 1989; 1990).

One case in point is the 'absolute gap'—the difference between per capita GNP of developed countries and that of developing countries. It was estimated that the absolute gap nearly doubled for all developing regions in the postwar period (see Figure 2). Another case is the 'relative gap', estimating per capita GNP of developing countries as a percentage of that of developed countries. Between 1962 and 1990, the relative gap increased from 19 per cent to 14 per cent for middle income countries, and from 4.22 per cent to 2.61 per cent for low income countries. It was estimated that, at the present growth rates, it would take most developing countries thousands of

years to close the development gaps (Morawetz 1977:28; Hogendorn 1992:12; Passé-Smith 1993:18–23).

Figure 2 **Widening absolute gap between developed and developing countries grouped by region, 1962–1990** (US$ at 1980 constant prices)



Note: Absolute gap refers to the difference between per capita GNP of developed countries and that of developing countries.
Source: World Bank, 1992. The World Tables 1992, Washington; IMF, 1984. International Financial Statistics: supplement on output statistics, No.8, Washington.

Uneven development within developing countries. Uneven development occurred not only between developed and developing countries, but also within each of these groups. It was noticed, however, that 'the gap between rich and poor is considerably wider within the developing economies than within the developed ones' (Ahluwalia 1974:31). Uneven development within the developing world has been, therefore, another focus of attention since the Second World War.

By analytical group, exporters of manufactures experienced the highest and most sustained growth while oil exporters, highly indebted countries, and Sub-

Saharan Africa recorded the worst rates of economic growth (see Table 3). The exporters of manufactures were mainly the so-called newly industrialised countries in Eastern Asia. Their economic performance in terms of growth rate outstripped not only other developing countries, but also the developed ones. As a result, these countries as a group managed to narrow the relative development gap nearly by half in the period (from 11.8 per cent in 1962 to about 22.1 per cent in 1990), whereas most developing countries saw a widening relative development gap.

Table 3 **Growth of per capita GDP in developing economies classified by analytical groups, 1965–1986** (%)

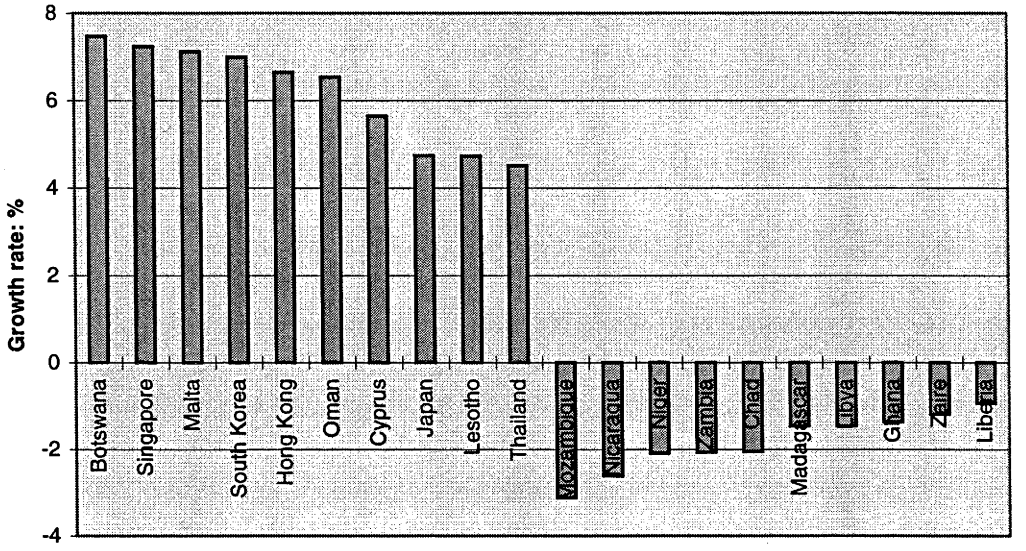
Group	1965–73	1973–80	1980–86
All developing countries	3.9	3.2	1.5
Exporters of manufactures	4.8	4.1	4.3
Oil exporters	4.3	3.2	-1.8
Highly indebted countries	4.2	2.9	-1.8
Sub-Saharan Africa	3.6	0.3	-0.3

Source: World Bank, 1987. *World Development Report* 1987, Washington: 26.

By individual countries, the contrast was more striking. It was estimated that in the postwar period, not only the seven fastest-growing but also the seven most slowly growing economies were in the developing World (see Figure 3). As a result, some of the fastest-growing economies (such as Singapore and Hong Kong) have gradually closed the development gap while the slowly-growing developing economies have little hope of doing so.[25]

[25] According to Jones's estimate, Hong Kong and Singapore had closed the absolute development gap by the 1990s (Jones 1993:19). According to Passé-Smith's estimate, at the same growth rate as in the period between 1962 and 1990, it would take Yugoslavia (with a 3.09 per cent annual growth rate) 2,007 years to close the absolute development gap. All the seven slowest-growing economies had a negative growth rate and, therefore, could only lag further and further behind (Passé-Smith 1993:18–23).

Figure 3 **Uneven growth between individual developing economies, 1962–1990** (per capita GNP growth rate %)



Note: Those with positive growth rate were the seven fastest-growing economies, and those with negative growth rate were the seven most slowly growing economies, in the world over the period.
Source: World Bank, 1992. *The World Tables 1992*, Washington; IMF, 1984. *International Financial Statistics: supplement on output statistics*, No.8, Washington.

Implications for China

Increased global integration and increasing uneven development constituted the broad global background against which China's radical change in development strategy occurred. The implications of increased global integration and increasing uneven development for China were far-reaching and profound.

Global integration indicated increasing interdependence between nations in the global market system. This demanded a change in China's attitude towards the existing global market system. In the early 1970s, although China regained its seat in the United Nations (1971), China's attitude towards the global market system was

still passive, or even hostile. China did not want to join the IMF, the World Bank, and the GATT, though as early as in 1973, the President of the World Band already sent an invitation telegram to Beijing. This is because China's leaders still pursued a socialist de-linking development strategy, and considered these international economic institutions were incompatible with China's socialist planned economic system. As Jacobson and Oksenberg (1990:64–5) pointed out, China's leaders believed that those institutions were

> contradictory to a socialist monetary system. They feared that China would face restrictions on the determination of its foreign exchange rate and control over the administration of its foreign exchange. This was considered unacceptable at a time when China's leaders adhered to a policy of extreme self-reliance in world affairs. The Chinese system for foreign trade was designed to insulate the Chinese economy from world market forces, which were regarded as irrational and harmful to Chinese national interests. The system in effect created an 'air lock' between the Chinese and the international economies.

Two progresses in global integration facilitated the change in China's attitude towards the global market system. First, China's trading partnership had undergone fundamental changes by the late 1970s. The share of China's trade with socialist countries in China's total foreign trade fell from 74 per cent in 1954 to 13.2 per cent in 1978. Conversely, by the late 1970s, China's trade with market economies had accounted for 86.8 per cent of China's total foreign trade. More than half of China's foreign trade in the late 1970s was with advanced Western market economies. The share of trade with Japan in China's total foreign trade, for instance, was 22.9 per cent in 1978, nearly doubling the share of China's trade with all socialist countries (Bucknall 1989:191–201). China's increased trade with market economies indicated the increasing incorporation of the Chinese economy into the global market economy, and therefore the failure of the de-linking strategy. China's Communist leaders had to face the harsh reality.

Second, by the late 1970s, some socialist countries had set examples to China. Romania and Yugoslavia, for instance, already joined the IMF. This eased, to a degree, worries on the part of China's leaders about further participation in the global market system. Immediately after the Third Plenum in 1978, China decided to participate in the IMF and the World Bank, and sent a delegation to Romania and Yugoslavia to learn how they worked within the global market system. In 1980, China entered the IMF and the World Bank. In 1986, China formally requested full participation in the GATT. China's decisions to participate in those keystone international economic institutions were an important part of China's re-linking development strategy, and they clearly showed China's determination to accommodate its planned economy to the global market economy. Although there are still some obstacles to China's participation in the GATT (now WTO), it can be expected that China will join it before long.

If increased integration informed China of a 'global consciousness', then increasing uneven development conveyed to China a 'feeling of crisis'. In the 1950s, China's leaders were overwhelmed by a belief that China could catch up with advanced Western countries in economic development in one decade or two. After nearly three decades of development, however, China's leaders found the development gap with Western countries was not closing as they had expected. According to Morawetz's estimate in 1977, at the growth rate of that time, it would take China 2,900 years to close the absolute gap (Morawetz 1977:26–30)! Even though Morawetz's estimate was based upon World Bank's data in 1977 when the Chinese official data were still not available, the Chinese official data, released later, did not change the overall picture.[26]

[26] According to the Chinese official data, China's growth rate between 1960 and 1975 was higher, but the GNP per capita in 1975 was much less, than what Morawetz estimated (Ma Yuping and Huang

Table 4 **Average annual growth of GDP in China and the Four Small Dragons, 1965–1980** (%)

Economy	Growth Rate
China	6.4
Hong Kong	8.5
South Korea	9.5
Taiwan	9.7
Singapore	10.4

Note: Four Small Dragons are Hong Kong, South Korea, Taiwan, and Singapore.
Sources: World Bank, 1988. *World Development Report 1988*, Washington; *Official Statistics of Taiwan*, Taibei.

A 'feeling of crisis' arose, therefore, in China, from the late 1970s onwards. It was further reinforced by the rapid growth experienced by China's neighbours, especially the Four Small Dragons—Taiwan, Hong Kong, Singapore, and South Korea. Although China's economic growth before the late 1970s was impressive as compared with most developing countries, it was lower than that of the Four Small Dragons (see Table 4). Even Indonesia (with a growth rate of 7.9 per cent) and Malaysia (with a growth rate of 7.4 per cent) outstripped China in economic performance over that period. This was really an alarming challenge to China's Communist leaders. If they could possibly attribute the development gap with developed Western countries to century-long semi-colonial exploitation, how could they explain away the rising development gap with China's Third World neighbours? If they wanted to maintain the Party's legitimacy, they had to prove to the Chinese people that socialist China could achieve better economic performance than countries with different economic systems.

Yuchong 1989:573–99; Jacobson and Oksenberg 1990:73). As for the dispute over statistics of China's economy, see Garnaut and Ma Guonan (1993).

In order to do so, they had to abandon idealistic fantasy and look reality in the face. They had to learn from the experience of China's fast-growing Third World neighbours. It was increasingly apparent that all China's neighbours, which experienced faster economic growth than China, were active participants in the global market economy. They did not pursue a de-linking strategy but adopted a market-oriented economic system. A feeling arose among the Chinese leaders that the radical de-linking strategy was partly responsible for China's unsatisfactory development performance (see Jacobson and Oksenberg 1990:68). As China opened up to market forces from the late 1970s onward, that awareness strengthened and increasingly became a strong impetus for China's re-linking strategy. This was later revealed by Deng Xiaoping in his southern tour of 1992. During that tour, he asked Guangdong province, the fastest-growing area in China, to step up reform and opening up so as to catch up with the 'four small dragons' in twenty years.

The above analysis shows that China has opened up to market systems both domestically and internationally since 1978 thanks to the adoption of reform and open-door policies. China's opening up has involved a radical change from a socialist de-linking to a socialist re-linking development strategy or from passive to active participation in the global market economy. The strategic change was the logical result of the operation of China's political economy in the sense that it was indispensable for achieving economic efficiency and development, and was promoted by two broad trends in the contemporary world: global integration and uneven development. With this in mind, it is understandable that Marxism and socialism in China are no longer the orthodox versions exemplified by the former Soviet Union. They are now home-made, 'realist' versions in the sense that they are emerging in, and adapting to, the reality of China's opening up to market systems, and in the sense

that they are changing and developing in the opening process. China's Marxism and socialism have to be understood this way in this thesis, and they do not conform to any orthodox textbooks about Marxism and socialism. A theoretical clarification of China's versions of Marxism and socialism in the opening process is not the focus of the thesis, and what concerns us most here is the impact of the opening up on China's development performance.

4 Active participation and rapid economic growth

China's opening up to market systems or active participation in the global market economy has had a tremendous impact on China's development performance. Evaluation of the impact is a very challenging task, a task to which the remaining chapters are devoted. It is challenging in the sense that opening up as defined in our study is a very complicated phenomenon, and conventional theories, including the development theories illustrated in Chapter 2, can shed very limited light on how to evaluate its impact on development performance. A new theoretical framework has to be developed, and related hypotheses have to be derived and tested. This is an adventurous endeavour, a risk that we have to take to fulfill the task.

This chapter is to work out a new growth framework to explain how China's rapid economic growth occurred in the process of opening up to market systems. First, China's extraordinary economic performance and the challenges it gives to conventional growth theories are examined. Then the new growth framework is presented, and tested against China's experience. Lastly, interpretations and remarks are made with regard to the growth framework and its test results. In subsequent chapters, the growth framework is applied to derive and test hypotheses about the impact of opening up on China's uneven sectoral growth and uneven regional development.

China's growth miracle: a challenge to growth theory

East Asia experienced faster economic growth than other parts of the world in the postwar period, a phenomenon described as the 'East Asian miracle'. China's rapid economic growth in the post-1978 period can be seen as the 'greatest miracle' in East Asia, for China surpassed all the East Asian NICs in terms of economic growth. China's extraordinary growth performance cannot be, however, explained satisfactorily by conventional growth theories, especially by the exogenous neoclassical growth model and the accounting of total factor productivity (TFP). Confronted with China's rapid and sustained economic growth in the re-linking or opening process, conventional wisdom reveals considerable limitations.

Extraordinary growth performance

After World War II, especially after the reconstruction period, the world witnessed rapid economic growth. In recent years, numerous studies have been devoted to analysing growth performances of individual countries and regions, work which was facilitated enormously by the data provided by the World Bank on GDP and per capita income of most countries from 1960 onwards. World Bank data are used here with the time series divided into two periods: the period between 1960 and 1978 and that between 1978 and 1993.

Table 5 **The 40 fastest-growing economies in the world, 1960–1993** (average annual growth rate %)

1960–1978		1978–1993	
Country	Growth rate	Country	Growth rate
Oman	14.61	Suriname	10.07
Cyprus	13.70	Botswana	9.45
United Arab Emirate	10.45	China	8.98
Libya	10.40	Maldives	8.75
Saudi Arabia	10.39	Azerba	8.62
Botswana	10.23	Korea, Republic of	8.11
Korea, Republic of	9.72	Oman	7.69
Cote d'Ivoire	9.62	Taiwan	7.66
Romania	9.60	Thailand	7.48
Taiwan	9.60	Macao	7.10
Singapore	9.07	Singapore	6.82
Ecuador	8.69	St. Lucia	6.74
Gabon	8.29	Bhutan	6.69
Hong Kong	8.28	Hong Kong	6.58
Armenia	7.90	Cape Verde	6.46
Japan	7.80	Pakistan	6.11
Belarus	7.73	Solomon Islands	6.09
Syrian Arab Republic	7.72	Antigua and Barbuda	6.09
Malta	7.68	St. Vincent and the Grenadines	6.03
Brazil	7.64	Malaysia	6.02
Israel	7.45	Cyprus	5.94
Thailand	7.43	Indonesia	5.63
Lithuania	7.40	Cambodia	5.61
Swaziland	7.33	Viet Nam	5.42
Iceland	7.22	Belize	5.39
Uzbekistan	7.15	St. Kitts and Nevis	5.39
Dominican Republic	6.88	Mauritius	5.26
Kenya	6.84	India	5.07
Malaysia	6.74	Turkey	4.79
China	6.73	Chile	4.67
Kazakhstan	6.61	Lao People's Democratic Republic	4.66
Mexico	6.57	Dominica	4.64
Lesotho	6.52	Egypt, Arab Republic of	4.63
Greece	6.41	Congo	4.46
Tajikistan	6.41	Grenada	4.45
Latvia	6.37	Sri Lanka	4.35
Costa Rica	6.34	Nepal	4.26
Estonia	6.22	Chad	4.26
Panama	6.15	Malta	4.23
Puerto Rico	6.12	Bangladesh	4.22
World	4.77	World	2.72
High-income	4.40	High-income	2.74
Middle-income	7.15	Middle-income	1.92
Low and middle-income	6.49	Low and middle-income	2.67
Latin America and Caribbean	5.63	Latin America and Caribbean	1.96
Sub-Saharan Africa	4.28	Sub-Saharan Africa	1.68
Middle East and North Africa	6.47	Middle East and North Africa	0.20
Europe and Central Asia	9.98	Europe and Central Asia	0.95

Notes: Growth rates are calculated at US$ 1987 constant prices.
Source: International Economic Databank, ANU.

As Table 5 shows, in the period between 1960 and 1978 China's average annual GDP growth rate was 6.7 per cent, ranking thirtieth in the world, lower than most East Asian economies such as South Korea (9.72 per cent), Taiwan (9.6 per cent), Singapore (9.07 per cent), Hong Kong (8.28 per cent), Japan (7.8 per cent), Thailand (7.43 per cent), and Malaysia (6.74 per cent). In the period between 1978 and 1993, however, China's average annual GDP growth rate was about 9 per cent, ranking third in the world, higher than all East Asian economies such as Korea (8.11 per cent), Taiwan (7.66 per cent), Thailand (7.48 per cent), Macao (7.11 per cent), Singapore (6.82 per cent), Hong Kong (6.58 per cent), Malaysia (6.02 per cent), and Indonesia (5.63 per cent).

It is worth noticing that China's accelerated economic growth since 1978 occurred during a period of time when the world economy experienced a recession and was suffering from the so-called 'productivity slow-down'. Compared with the earlier period, China's average annual GDP growth rate rose by 3.3 percentage points, while the average annual GDP growth rate of the world fell by 2.05 percentage points, that of high-income economies fell by 1.66 percentage points, that of middle-income economies fell by 5.23 percentage points, that of low-income economies fell by 3.82 percentage points.

China's rapid growth in GDP was accompanied by rapid growth of per capita income. As shown in Table 6, in the pre-1978 period per capita income in China increased only by 171 per cent, very close to the per capita income increase of the world average (158 per cent), slower than that of high-income economies represented mainly by OECD members (184 per cent), and that of East Asian and Pacific economies (192 per cent). From 1978 to 1993, however, per capita income in China

increased by 300 per cent, much faster than the world average (116 per cent), and that in all the country groups listed by the World Bank (see Table 6).

Table 6 **Per capita income in China and in other countries, 1960–1993** (US$ at current prices)

Country	1960	1978	1993
China	70	120	360
Low-income economies	160	220	360
High-income economies	7160	13200	17460
East Asia and Pacific	120	230	590
Sub-Saharan African	440	590	450
Latin American and Caribbean	1130	1820	1830
OECD members	7380	13560	17840
World	1870	2950	3430

Source: International Economic Databank, ANU.

A quick look at Chinese economic history would suggest that China's economic performance has been quite good since the establishment of the PRC in 1949. Examined in detail, however, it can be seen that there are important differences between the pre-1978 and the post-1978 periods. As the World Bank data on GDP and per capita income do not cover the period before 1960, the data on national income (NI) and total output value of society (TOVS) can be used for making historical comparisons.[1] Consistent data on China's NI and TOVS in the period between 1952 and 1992 are provided in Table 7, and are also plotted in Figure 4 to give a clear picture of China's growth performance in the period as a whole.

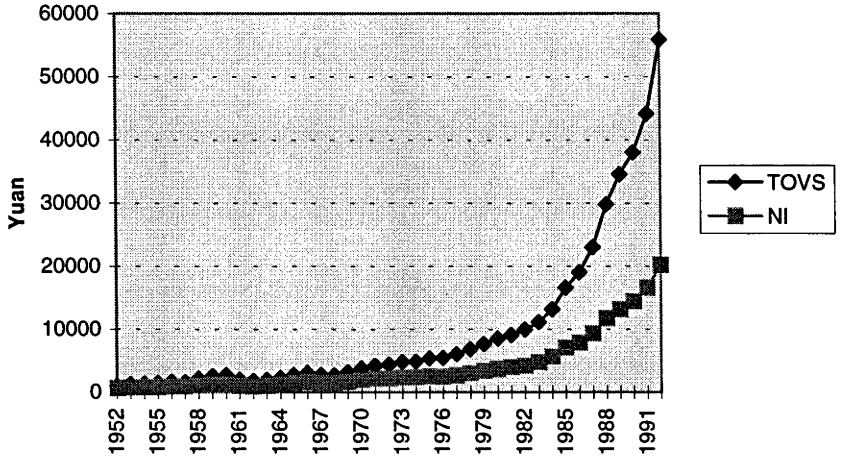
[1] National income is net material product (NMP) in the socialist accounting framework, and it is equal to gross value of output minus material consumption.

Table 7 **China's national income and total output value of society, 1952–1992** (value and indices)

Year	National income		Total output value of society	
	Value (*yuan at* current prices)	Indices (1952=100)	Value (*yuan at* current prices)	Indices (1952=100)
1952	589.00	100.00	1015.00	100.00
1953	709.00	114.00	1241.00	118.70
1954	748.00	120.60	1346.00	128.80
1955	788.00	128.30	1415.00	136.60
1956	882.00	146.40	1639.00	161.10
1957	908.00	153.00	1606.00	170.90
1958	1118.00	186.70	2138.00	226.60
1959	1222.00	202.00	2548.00	267.40
1960	1220.00	199.10	2679.00	279.80
1961	996.00	140.00	1978.00	186.20
1962	924.00	130.90	1800.00	167.50
1963	1000.00	144.90	1956.00	184.60
1964	1166.00	168.80	2268.00	216.90
1965	1387.00	197.40	2695.00	258.20
1966	1586.00	231.00	3062.00	301.90
1967	1487.00	214.30	2774.00	272.00
1968	1415.00	200.30	2648.00	259.20
1969	1617.00	239.00	3184.00	324.70
1970	1926.00	294.60	3800.00	403.20
1971	2077.00	315.30	4203.00	445.40
1972	2136.00	324.30	4396.00	465.30
1973	2318.00	351.20	4776.00	505.50
1974	2348.00	355.20	4859.00	515.10
1975	2503.00	384.70	5379.00	574.40
1976	2427.00	374.50	5433.00	582.30
1977	2644.00	403.70	6003.00	642.50
1978	3010.00	453.40	6846.00	726.30
1979	3350.00	485.10	7642.00	788.20
1980	3688.00	516.30	8534.00	854.20
1981	3941.00	541.50	9075.00	891.70
1982	4258.00	585.80	9966.00	976.40
1983	4736.00	644.20	11131.00	1076.20
1984	5652.00	731.90	13171.00	1234.60
1985	7020.00	830.60	16582.00	1446.30
1986	7859.00	894.50	19045.00	1593.10
1987	9313.00	985.70	23034.00	1818.20
1988	11738.00	1097.20	29807.00	2106.00
1989	13176.00	1137.20	34519.00	2219.90
1990	14429.00	1191.60	37996.00	2364.20
1991	16557.00	1287.80	44142.00	2640.00
1992	20223.00	1473.20	55842.00	3212.60

Source: *Statistical Yearbook of China 1993*, Beijing.

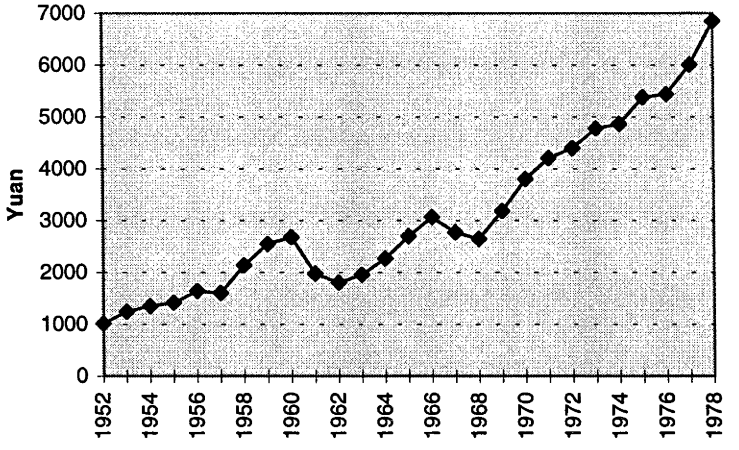
Figure 4 **China's national income and total output value of society, 1952–1992** (*yuan* at current prices)



Note: NI denotes national income, and TOVS denotes total output value of society.
Source: *Statistical Yearbook of China 1993*, Beijing.

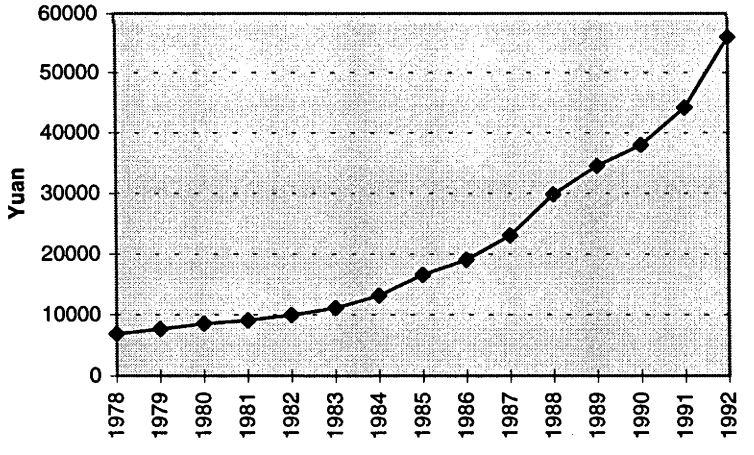
From Figure 4 and Table 7, it is very clear that there was a sharp rise in the growth of China's NI and TOVS from the late 1970s onwards. Between 1952 and 1992, China's average annual TOVS growth rate and China's average annual NI growth rate were high by any standard—7.96 per cent and 6.36 per cent, respectively. They were, however, much higher in the period between 1978 and 1992 (10.72 per cent and 8.64 per cent, respectively) than in the period between 1952 and 1978 (6.76 per cent and 5.24 per cent, respectively).

Figure 5 **China's total output value of society, 1952–1978** (*yuan* at current prices)



Source: *Statistical Yearbook of China 1993*, Beijing.

Figure 6 **China's total output value of society, 1978–1992** (*yuan* at current prices)



Source: *Statistical Yearbook of China 1993*, Beijing.

The striking difference between the two periods lies not only in growth rate but also in the stability of the growth performance. In Figures 5 and 6, China's TOVS is plotted for the two periods. As the figures show, China's growth performance was

unstable in the pre-1978 period, undergoing two major crises. As explained in the previous chapter, these were the result of adverse interventions from the central government: one was the result of the 'communist wind' and the other the result of the 'revolution wind'. In fact, as analysed previously, the Chinese economy had suffered from a crisis due to the socialist de-linking strategy by the late 1970s, and could not maintain its growth momentum. In the post-1978 period, by contrast, China's growth performance has been quite stable, and demonstrates a great potential for long-run sustainability.

Conventional wisdom challenged

No matter what ideological preference might be held, there is no denying that the growth 'miracle' should be attributed, first of all, to the reform and open-door policies, or the re-linking development strategy—re-linking China's version of socialism with market mechanisms both domestically and internationally in order to achieve economic efficiency and development. From 1978 onwards, therefore, accelerated marketisation at both the domestic and the international levels ushered in a new era in the history of the PRC, and exerted an increasingly strong influence on the Chinese economy. Any effort to model China's growth performance would be unconvincing if it ignores or 'exogenises' the significant change in the direction of marketisation.

The significant change can, however, hardly be captured satisfactorily by the dominant neoclassical growth paradigm, which is characterised by an exogenous growth theory and various TFP accounting exercises. An official Chinese newspaper the *Economic Daily* announced, for instance, a TFP accounting result on 20 October 1995: of the observed growth in the period, physical capital and labour inputs

accounted for 71.3 per cent and TFP accounted for the remaining 28.7 per cent. The accounting result cannot tell where the TFP came from, and what role marketisation played. It only implies that China's growth seemed to be driven mainly by massive physical inputs, not much different from the previous period. The same is true of most other growth accounting exercises on China's recent growth performance, though some of them only focus on one or another industrial level (see, for instance, Chen, Wang, Zheng, Jefferson, Rawski 1988; Jefferson, Rawski, and Zheng 1994; Borensztein and Jonathan 1996). Given the deficiencies in the theory, epistemology, and methodology of the paradigm, as seen below, these unconvincing accounting results could be expected.

The neoclassical growth paradigm has dominated empirical studies on growth since the seminal work of Robert Solow (1956, 1957). It pointed out that 'growth in conventional inputs explains little of the observed growth in output' in developed countries, and that the explanation has to be found somewhere else (Griliches 1994:1). This significant finding has been increasingly proven to be robust, and is shown in this study to be true of developing countries undergoing a re-linking or opening process like China. Meanwhile, however, theoretical and empirical problems with the paradigm have been proven to be so serious that they have led to confusing and wrong conclusions about the dynamics of growth (Chyi 1995; Srinivasan 1995).

The neoclassical growth paradigm is based on an aggregate production function which can be written as

$$Y = AF(K, L) \qquad (1)$$

where Y stands for output, K for physical capital input, L for labour input, and A for TFP progress or all that cannot be explained by the inputs. What distinguishes the model from the classical one is the special role ascribed to TFP. The disembodied TFP was invented to capture 'any kind of shift in the production function' (Solow 1957:12). To this end, a number of assumptions were made such as that of constant returns to scale, neutrality of TFP progress, and a closed economy with competitive output and input markets (Solow 1957; Chow 1995).

It is now widely acknowledged that the most important pitfall in the theoretical framework of the neoclassical growth paradigm lies in exogenising TFP and an inability to explain where it comes from. As a result, TFP has become, no matter whether it is measured as a residual or a coefficient on a time trend, 'a measurement of our ignorance', and has few, if any, policy implications (Griliches 1994; Chyi 1995). It has also been acknowledged that most of the assumptions underlying the model violate the most obvious facts about the real world, and have inevitably led to serious problems with estimation in growth accounting exercises (Boskin and Lau 1992; Srinivasan 1995). From Equation 1, it can be seen that TFP progress is 'exogenised' as a Hicks–neutral factor in the production function. As constant returns to scale are assumed, the exogenous TFP actually becomes the most dynamic source of growth. Neutral TFP progress is, however, a serious distortion of reality. It is here that 'new growth theories' have given the strongest challenge to the paradigm. Proponents of the new theories argued that TFP progress is embodied in various inputs, and is expressed in increased human capital accumulation or improved quality of physical inputs. New growth models tried to 'endogenised' TFP by including such factors as 'learning by doing', 'knowledge spillover', and government fiscal policies on trade and R&D. They not only undermined the basic assumption of

constant returns to scale and neutral TFP progress (Romer 1986; Lucas 1988), but also discredited the growth accounting results based on them (Szirmai 1993; Srinivasan 1995).[2]

A related pitfall in the theoretical framework of the neoclassical growth paradigm lies in oversimplifying inputs and an inability to explain the mechanisms by which inputs are efficiently allocated. As has been repeatedly pointed out by 'new growth theories', inputs should not be understood in a narrow sense as if they only include 'capital and labour inputs in physical units' (Solow 1957:312), but they should include human capital accumulation in a broad sense. However, the absence of market mechanisms in the neoclassical growth paradigm has not received sufficient attention from 'new growth theories'. Given that the mainstream neoclassical economics is characterised by, among other things, the predominant role ascribed to market mechanisms in improving efficiency in resource (input) allocation, it is quite reasonable to ask whether a model failing to explain the role of market mechanisms in growth deserves the name 'neoclassical'.

The neoclassical growth model and the TFP accounting practice are not, therefore, very helpful in the understanding of the dynamics of growth. It is unhelpful in the sense that it has led researchers to focus only on the supply side to the point that the demand side is basically ignored. As Adrian Pagan (1995:327) pointed out:

> It is intriguing to see how demand management has been relegated to a back-seat in the discussion. Historically, economists treated demand in its various

[2] According to the estimation made by Solow (1957) without allowance for quality change in physical inputs, for instance, technical change accounted for 87.5 per cent of economic growth in the USA in this century while the remaining 12.5 per cent was accounted for by capital and labour inputs. According to the estimation made by Jorgenson (1990), with allowance for quality changes, however, technical change accounted for only 22 per cent of the growth while the remaining 78 per cent was accounted for by capital and labour inputs. Although they did not examine exactly the same period, the strikingly variant estimations could not be explained away by the time difference, as noted by Srinivasan (1995:55). A similar controversy also occurred between Denison and Kendrick, as pointed by Szirmai (1993:6–8). The sharply contradicting accounting results show that the exogenous neoclassical growth model has to be transcended before we can make any allowance for human capital accumulation and quality changes in physical inputs.

guises, e.g. trade, as a most important factor in generating growth, as evidenced by the staple theory of growth.

The absence of the demand side might not be a problem if the Solowian model had remained a production function *per se*. There is a problem, however, if it becomes, as it did, a framework of a growth model, especially a framework of a 'long-run macro-model' of growth as Solow (1957:312) called it. It is unhelpful also in the sense that it makes the model especially inapplicable to the case of developing countries, especially those undergoing a transition or opening process. Not only is the expansion of foreign markets essential to rapid economic growth as shown by the experience of the NICs, but also the opening of domestic markets is indispensable for sustained long-run growth as suggested by the experiences of China and other former socialist de-linking countries (see, for instance, Young 1993; Kim and Lau 1994; Ito and Krueger 1995).

It is worth noticing that recent efforts in new growth theories and empirics to relate trade to growth have either concentrated on the role of foreign trade in transferring knowledge, or have isolated foreign trade from domestic trade (see, for instance, Lucas 1988; Grossman and Helpman 1990a; 1990b; 1991; Tybout 1992; Wei 1995). That is, the 'invisible hand' is only partly rediscovered in new growth theories. It is here that perhaps lies the most outstanding theoretical problem with new growth theories and empirics: while there is a consistent theoretical framework in the exogenous neoclassical paradigm, there is not one in endogenous new growth models to link contributive factors together logically and effectively, as admitted by Romer (1995)[3]. Given the fact that at least 50 variables have been found to be significantly

[3] Romer (1995:69) noted: 'We have not yet reached consensus about how to write down a model that blends elements like learning by doing, knowledge spillovers, patents, explicit research and development, and government support for science. But we are once again making a serious effort toward reaching this goal'.

correlated to economic growth in regression analyses, the absence of a consensus theoretical framework to group key explanatory variables in a logical way in new growth theories and empirics inevitably leads researchers to focus on so vastly divergent elements that the resulting estimates are doomed to be very fragile. As Levine and Renelt (1992) pointed out:

> There does not exist a consensus theoretical framework to guide empirical work on growth, and existing models do not completely specify the variables that should be held constant while conducting statistical inference on the relationship between growth and the variables of primary interest. This has produced a diverse and sometimes unwieldy literature, in which few studies control for the variables analysed by other researchers.

The theoretical deficiency in new growth models helps to explain why the neoclassical growth paradigm still, though with so many pitfalls, enjoys wide popularity in empirical work (see, for instance, Dowrick and Nguyen 1989; World Bank 1991; 1993; Benhabib and Jovanovic 1991; Boskin and Lau, 1992a; 1992b; Kin and Lau 1992, 1994; IMF 1995; Borensztein and Jonathan 1996).

In a sense, the epistemological problem with both the neoclassical growth paradigm and the new growth theories and empirics is the same: overdue eagerness for exhaustive explanation. While neoclassical growth theorists and empiricists try to find 'a way of exhaustively accounting for the ingredients that lead to the observed growth trend' by a single TFP without any concrete meaning (Samuelson, Nordhaus, Richardson, Scott and Vallace 1992:496), new growth theorists and empiricists tend to find ways of exhaustively explaining the observed growth by as many variables as possible without a consistent link between them. The realistic and yet promising goal of a growth model should lie in between, that is, to capture the key rather than all the mechanics of growth. We should admit that we can never explain completely such a complicated process as economic growth due to both the limited ability of our

intellectuality and the limited availability of the data. A theoretical model or a well-established paradigm can, no matter how 'perfect' it appears to be, only be justified relatively, and this has been proved to be true by our intellectual history (Kuhn 1970).

In the next section, a 'two-way effect' approach to modelling growth is presented to capture the key mechanics of growth in transition or opening economies: the interaction between various inputs on the one hand and efficiency in input allocation and utilisation introduced by market orientations on the other.

Besides the theoretical and epistemological limitations, there are also methodological problems with the neoclassical growth paradigm, which have, together with the problems analysed above, resulted in enormous imprecision in estimation in TFP accounting. Table 8 shows, for instance, vast variations in TFP growth rates for Singapore estimated by different researchers. For an analysis of the possible causes of the variation, it is necessary to distinguish between different effects and look into various estimation approaches. Two broad approaches can be identified in growth accounting exercises. The first can be labelled the stock/rate approach, which estimates either the effect of input stocks on GDP (Equation 1) or the effect of the growth rate of the input stocks on the GDP growth rate (Equation 2).

$$\frac{\Delta Y}{Y} = AF\left(\frac{\Delta K}{K}, \frac{\Delta L}{L}\right) \qquad (2)$$

where Δ denotes change over previous period. The stock/rate approach is 'typical' of the neoclassical growth accounting exercises initiated by Solow, and is also 'ideal' according to the neoclassical growth theoretical framework if only the necessary data were available. It is here, however, that growth accounting has met almost insurmountable difficulties.

Table 8 **Estimates of average annual TFP growth rate for Singapore**

Source	Period covered	TFP growth (%)
Chen (1977)	1957–70	3.62
Tsao (1986)	1966–72	0.60
Elias (1990)	1950–87	1.81
Bosworth, Collins and Chen (1995)	1960–92	0.60
International Monetary Fund (1995)	1961–91	1.80
Kim and Lau (1994)	1964–90	1.90
Yong (1992)	1966–85	-0.50
Yong (1993)	1970–85	0.10
Yong (1994)	1966–90	-0.30
Nehru and Dhareshwar (1994)	1960–73	4.70
	1973–87	1.50
	1960–87	-0.80
Kawai (1994)	1970–90	1.10
Toh and Low (1994)	1970–92	1.37

Being more or less an 'accumulative effect' estimation, as shown in the next section, both the stock and the growth rate approaches demand, among other things, an accurate calculation of accumulated physical capital stock, a task which is so difficult, or even impossible, that Solow himself (1957:314) had to admit that it 'will really drive a purist mad'. As a result, growth accounting exercises face two choices in empirical studies. On the one hand, one or another approach to estimating physical capital stock has to be invented no matter how arbitrary it is. The unreliability of the existing three approaches to capital stock estimation (that is, gross capital stock at replacement cost; the net capital stock; cumulative gross investment) was already pointed out by Scott (1989:xxix, 90–3). If the capital stock cannot be estimated accurately, how can we expect the accounting results based on the estimation to be precise? On the other hand, if the capital stock and its growth rate cannot be

estimated, proxies have to be found. This leads to the second estimation approach within the neoclassical growth paradigm: 'mixed-effect' estimation.

Mixed-effect estimation occurs when the right-hand variables in a regression are not in an unified form, and thereby the estimated effects are conflated. The mixed-effect approach has been very popular in neoclassical growth accounting exercises in recent years as the capital stock growth rate was increasingly proxied by the ratio of gross investment to GDP. In that case, the mixed-effect estimation can be expressed mathematically as

$$\frac{\Delta Y}{Y} = AF\left(\frac{I}{Y}, \frac{\Delta L}{L}\right) \tag{3}$$

where I denotes gross investment. The inconsistency in estimation of the effects can be seen from the equation. Although there could be justification for use of the investment ratio as a proxy for the capital stock growth rate (see, for instance, Feder 1982:62–3), its impact on the GDP growth rate could not be the same since investment and GDP might not increase proportionally at the same pace as the capital stock grows[4]. The capital stock in the USA in the first half of the century tended, for instance, to rise rather steadily from US$ 146,142 million in 1909 to US$ 289,360 million in 1949 (Solow 1957). By contrast, however, the investment ratio in the USA fell from 17.9 per cent in the period between 1890 and 1909 to 12.7 per cent in the period between 1930 and 1949 (Barro and Sala-I-Martin 1995). The mixed-effect

[4] For instance, if investment remains the same as in the previous year while GDP grows due to other contributive factors such as increased labour and human capital inputs or improved efficiency in input allocation and utilisation, the growth rate of physical capital stock will be zero while the investment ratio might decline from, say, $\frac{4}{10}$ to $\frac{3}{10}$. The effect of a zero capital stock growth rate and that of a declining investment ratio are obviously not the same in a regression.

approach would inevitably produce inaccurate estimates in growth accounting where the shares of the right-hand variables in the total effect need to be calculated and compared according to regression coefficients. In that situation, the effect of capital stock growth (proxied by the investment ratio) could be either overestimated or underestimated, and the decomposed contribution of TFP to growth could be very misleading.

Two reasons stand out for the popularity of the mixed-effect approach. One is the insurmountable difficulties in calculating capital stock as noted above, and the other is the increasing interest in cross-country comparison. As Dowrick and Nguyen (1989:1016–7) admitted:[5]

> Lacking estimates of capital stock for all countries in our sample, we will initially follow the common practice of proxying capital growth by the average annual share of investment in output, (I/Q). Implicit in this practice is an assumption that capital-output ratios are constant across countries and over time...This assumption is clearly open to criticism.

It is perhaps exactly due to the same two reasons that the mixed-effect approach was also quite popular in existing endogenous new growth models, where not only the investment ratio but also the export ratio, schooling ratio, literate rate, government expenditure ratio, etc., were mixed up with growth rates such as labour input growth rate, population growth rate, inflation rate, and domestic credit growth rate (see Levine and Renelt 1992; Barro and Sala-I-Martin 1995). It is obvious that future growth models need to address the effect estimation problems. To this end, a net-increase effect approach is applied in our growth modelling, and is illustrated in the next section.

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[5] Their assumption that 'capital-output ratios are constant across countries and over time' is in violation of reality. As shown by Barro and Sala-I-Martin (1995:8–9), for instance, the investment ratio declined steadily in the USA but rose steadily in Canada, France, Japan, Australia, and other countries

What created the miracle: a model and its application to China

To overcome the limitations of conventional growth modelling, a growth framework for transition or opening economies is developed to capture a key mechanism of China's growth performance. For the epistemological reason given above, it should be pointed out from the very outset that the growth framework is intended to identify the main rather than all mechanisms of economic growth, that is, a two-way net-increase relationship in economic growth in a transition or opening economy. The growth framework is specified first, and then is tested against China's growth performance in the post-1978 period.

Model specification

The theoretical framework of the model is quite simple, and can be expressed mathematically as

$$\Delta Y = F(\Delta I, \Delta E) \qquad (4)$$

where Y stands for GDP, I for various inputs such as labour, physical capital and human capital, E for efficiency in input allocation and utilisation introduced by domestic and international market orientations. Δ stands for net increase, so $\Delta Y = Y_t - Y_{t-1}$, $\Delta I = I_t - I_{t-1}$, and $\Delta E = E_t - E_{t-1}$. As can be seen from Equation 4, the model is better named the two-way net-increase effect model.

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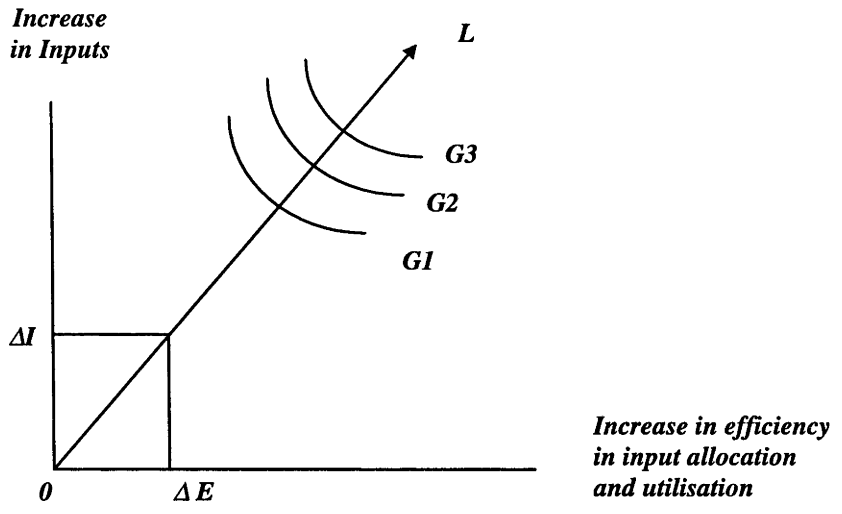
in the first half of the century. The varying investment ratios apparently imply varying capital-output ratios.

Figure 7 **Two-way net-increase effect model**



Note: Economic growth is expressed as a function of the interaction between the increase in inputs and the increase in efficiency in input allocation and utilisation through market orientations. The interaction pushes the growth isoquant along the growth locus *L* from *G1* to *G2, G3...*

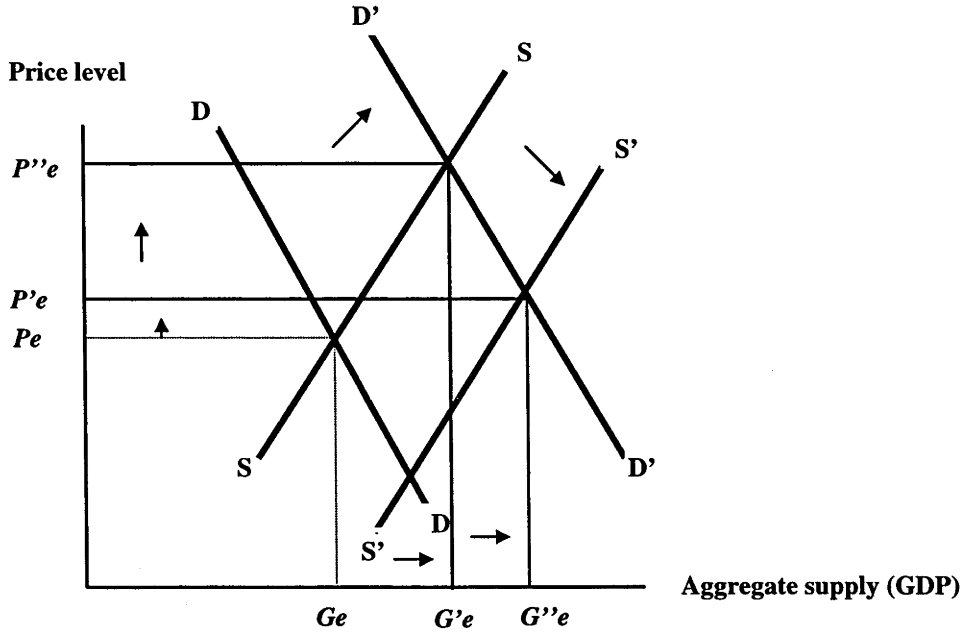
By 'two-way' effect, it is meant that economic growth takes place because either various inputs are increased or efficiency in input allocation and utilisation is improved through market orientations, or both. The dynamics of growth come, therefore, from the two main directions. A diagrammatic exposition of the theoretical framework of the model can be found in Figure 7, where the vertical axis expresses net increases in various inputs and the horizontal axis expresses net increases in efficiency in input allocation and utilisation introduced by market orientations. Better allocation of existing resources and improved utilisation of existing resources would be caught up as the residual. But here, they are seen as separate factors. Line *L* stands for the growth locus the slope of which is determined by the ratio of input increase to efficiency increase in a particular growth process. In this hypothesised case, the ratio is $\frac{O\Delta I}{O\Delta E}$. *G1, G2, G3* are growth isoquants, with *G1<G2<G3*. A growth isoquant

shows all the possible combinations between an input increase and an efficiency increase that are functionally capable of producing a given increase in GDP. Economic growth is expressed in the figure as the movement along the growth locus upwards from *G1* to *G2*, *G3*...due to the effect of the interaction between increases in inputs and increases in efficiency in input allocation and utilisation through market orientations.

Obviously, there are two assumptions underlying the 'two-way effect' argument. The first assumption is that in developing countries undergoing a transition or opening process, market orientations can lead to increasing efficiency in resource allocation and utilisation. The assumption should be understood in at least two ways.

First, what determine economic growth are not only what happens on the supply side (especially various inputs such as labour, physical and human capital) but also what happens on the demand side (including both domestic and international markets). The long-run supply curve is not vertical in labour-surplus developing countries with enormous rural unemployment and underemployment, expecially those in a transition or opening process.[6] It is similar or even identical to the short-run supply curve. If market demand increases due to non-price determinants (such as the increase in disposable income, expansion of foreign trade), the market demand curve shall shift, as shown in Figure 8, outward from *DD to D'D'*, and the economy shall be led to make fuller use of its resources than before to meet the rising demand. In that case, no matter whether the supply curve *SS* remains constant or is pushed outward to *S'S'*, the aggregate supply (GDP) increases from *Ge* to *G'e* or to *G''e*, and the output growth of the economy is thus accelerated.

Figure 8 **Shift in market demand curve: consequences**



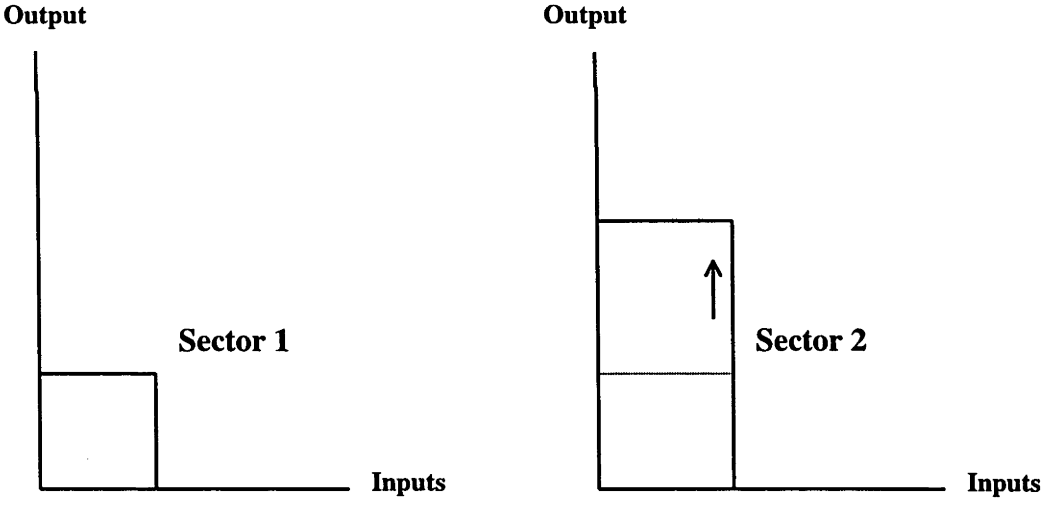
Note: In labour-surplus developing countries, the long-run supply curve is not vertical. If demand curve shifts from *DD* to *D'D'*, and the supply curve *SS* either remains constant or is pushed outward to *S'S'*, the aggregate supply increases from *Ge* to *G'e* or to *G''e*.

Secondly, market orientations increase efficiency also by reallocating resources from sectors with lower productivity to sectors with higher productivity, and thereby the output produced by the same amount of resources increases. This is especially true of developing countries where there exists a significant productivity gap between primary and non-primary industry due to the surplus rural labour, as is the case in China (Gillis, Perkins, Roemer, and Snodgrass 1992:53–62). As shown in the next chapter, the productivity of non-primary industry is about 4 or 5 times as high as that of primary industry in China, and uneven changes in market demand for goods produced in the two kinds of industry (measured as coefficients of income elasticities

[6] A vertical supply curve is based upon the assumption of full employment and capacity output. The assumption does not hold in labour-surplus developing countries, especially those in a transition or

of demand) have drawn resources from the latter to the former.[7] This is also especially true of transition or opening economies where there exists a significant productivity gap between state-owned and non-state owned enterprises due to previous adverse government intervention, as in the case of China. As seen in the next chapter, the productivity of non-state owned enterprises is 2 or 3 times as high as that of state-owned enterprises in China, and market competition has drawn resources from the latter to the former. Resource flows between these sectors mean that they are more efficiently utilised, and that output produced by the available resources increases substantially. As Figure 9 shows, the reallocation of inputs from sector 1 to sector 2 more than doubles output in the hypothesised case.

Figure 9 **Reallocation of inputs: consequence**



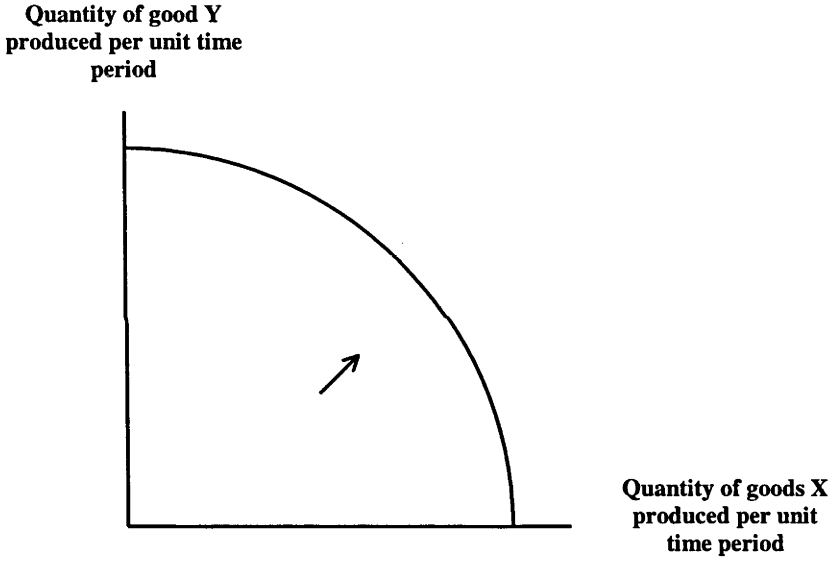
Note: Market competition reallocates inputs from sectors with lower productivity (sector 1 in the figure) to sectors with higher productivity (sector 2 in the figure), the output produced by the same amount of inputs increases.

Under both circumstances, the economy moves from an inferior position towards the production possibility frontier, as shown in Figure 10. The economy

opening process, owing to redundant labour forces in agriculture or state-owned enterprises.

would move away from the production possibility frontier if the opposite happens. That is, market demand decreases due to non-price determinants, more and more available inputs lie idle, and a recession ensues; or alternatively, inputs flow, due to adverse government intervention, from sectors with higher productivity to sectors with lower productivity (as occurred in the former socialist-de-linking countries), and the output produced by available resources decreases.

Figure 10 **The production possibility frontier**



Note: Improvement in efficiency in resource allocation and utilisation through market orientations can lead an economy to move toward the production possibility frontier.

It should be pointed out that in developing countries undergoing the transition to markets systems like China, increasing market orientations can indicate not only efficiency gains buy also the success of government policy reforms. Government can play a positive role in the process, and 'good' government policies and reform

[7] Primary industry is equal agriculture in China.

measures are those that can provide legal, social, and physical infrastructure necessary for making full use of market mechanisms on the one hand and correct 'market failures' on the other. Given that the pre-1978 de-linking strategy was aimed at eradicating all trade and commodity relations and the post-1978 re-linking strategy was to release trade and commodity relations to increase efficiency (see Chapter 3), it may be argued that the increase in domestic and foreign trade can be taken as a proxy for increasing market orientations and the ensuing efficiency gains introduced by policy reforms in the re-linking process, and this argument is further justified by the particular long-run supply curve of developing countries in a transition or opening process (see Figure 8). This proxy is better than the decrease in government intervention within the context of China's special case, though the latter could also be an appropriate measure in some circumstances.

Another assumption underlying the 'two-way effect' argument is that human capital input represents the accumulation of human knowledge and the improvement in the quality of physical capital and labour inputs and, therefore, is a special input different from physical capital and labour inputs. As such, its increase indicates, together with the increase in efficiency in input allocation and utilization through market orientations, 'productivity' progress, and the conventional definition of productivity has to be modified thereby.[8] All these 'non-physical' factors are, as 'endogenised' TFP, the most active driving forces of long-run sustainable economic growth. Their aggregate share in the total effect on growth is, therefore, a very important indicator of sustainability of economic growth in an economy, especially a transition or opening economy.

[8] Productivity was conventionally defined as 'the ratio of aggregate output to aggregate input' or 'our economic ability to turn resources into output' (Sargent 1986:3). As conventional inputs or resources included only 'capital and labour inputs in physical unit' (Solow 1957:312), human capital increases

By 'net-increase effect' it is meant that economic growth boils down to the net increase in GDP, which is a function of the net increase in all the contributing factors. The 'net-increase effect' argument distinguishes the model from almost all existing models, no matter whether it is a consistent stock effect model (Equation 1), growth rate effect model (Equation 2), or an inconsistent mixed-effect model (such as that in Equation 3). The distinction between a 'net-increase effect' model and consistent stock/rate effect models is not as easily recognised as that between a net increase effect model and an inconsistent mixed-effect model, and therefore should be given more attention here. In a word, both the stock effect and the growth rate effect are more or less 'accumulative effects' while the net increase effect is not. The most obvious case is the stock effect which is characteristic of any aggregate production function in the form of Equation 1. It only shows how GDP increases from **zero** to a certain level due to the effect of factor accumulation (stocks), but it cannot tell exactly how GDP increases from one level to another due to the effect of net factor increases. That is, it cannot explain how **growth** happens! It is therefore basically a 'static' effect model, as Sarel (1995) called it. It should not be used as a growth model in the true sense, although it could be used to measure the aggregate performance of an economy if the necessary data were available.

The growth rate effect is more 'dynamic' than the stock effect, but it is still overshadowed by an 'accumulative effect' since a net increase has to be divided by a previously accumulated level $\left(\Delta x/x\right)$. Only the 'net-increase effect' model is 'accumulative-effect free' (Δx), as is the case in Equation 4. The difference between a growth rate effect and a net increase effect has long been neglected to the point that only the former is taken as 'dynamic' (Saral 1995) and is used in growth modelling.

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should be taken as part of productivity progress. In that context, the above definition of productivity

The difference can, however, be shown in a simple test in any regression. As growth rate effect estimation is very sensitive to the previously accumulated level of the right-hand variables, net increase effect estimation is highly recommended in growth modelling. The recommendation is further justified by the insurmountable difficulties in calculating accumulated capital stock and its growth rate, since all these difficulties can be avoided in a 'net-increase effect' model.

Underlying the 'net-increase effect' argument is an assumption that what has an effect on net increases in GDP is **ultimately** the net increase in, rather than the previous accumulated level of, all the contributing factors. A related counter-factual hypothesis would be: if a country maintains the previously accumulated level of all the contributing factors **for years** (it is actually impossible), its GDP could not possibly increase or might even decrease in a competitive global market context. A question arises here, however, with regard to what are net increases in physical and human capital inputs. To avoid arbitrarily estimating the depreciation rate of physical capital (not to mention human capital) as the neoclassical growth theorists and empiricists did, we follow Scott (1989; 1993) and use new investments in the period concerned (I_t) as proxies for net increases in physical (and human) capital inputs in our net-increase effect model.

Empirical test

In applying the two-way net-increase effect model to China, a set of panel data was collected which covers all the 30 provinces and metropolitan cities in China for the 16-year period from 1978 to 1993. The increase in inputs is divided into three parts: the increase in labour input (ΔL), the increase in physical capital input (ΔPc),

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has to be modified.

and the increase in human capital input (ΔHc), and they are proxied respectively by the increase in the number of labourers employed, the new investment in fixed assets, and the new government expenditures on culture, education, science and health care (including the so-called 'three funds' for science and technology). The increase in efficiency introduced by market orientations is divided into two parts: the increase in efficiency through increased domestic market orientation (ΔDm) and the increase in efficiency through increased international market orientation ($\Delta \mathrm{Im}$), and they are proxied by the increase in the total value of retail sales and the increase in the total value of imports and exports respectively.[9] By substituting these for ΔI and ΔE in Equation 4, we obtain

$$\Delta Y = F(\Delta L, \Delta Pc, \Delta Hc, \Delta Dm, \Delta \mathrm{Im}) \qquad (5)$$

where ΔY stands for the increase in GDP.

We then specify the relationship in Equation 5 with the familiar statistical model known as the exponential regression model:

$$\Delta Y_{it} = A\Delta L_{it}^{\beta_1} \Delta Pc_{it}^{\beta_2} \Delta Hc_{it}^{\beta_3} \Delta Dm_{it}^{\beta_4} \Delta \mathrm{Im}_{it}^{\beta_5} e^{u_{it}} \qquad (6)$$

where u stands for the stochastic disturbance term, e for the base of natural logarithms, i for the ith province and t for the tth time period. It should be pointed out that the model assumes a zero or even negative intercept.[10] We use the intercept-

[9] All data come from the various statistical yearbooks published by the state and local governments in China, including the *Statistical Yearbook of China* (1983–1995), *Almanac of China's Foreign Economic Relations and Trade (1984–1995)*, and the Statistical Yearbooks of the 30 provinces and metropolitan cities. Occasional missing values are estimated by regressions with 'goodness of fit' (R^2) no less than 0.95.

[10] See the assumption made previously for the 'net-increase effect' argument.

present rather than the regression-through-origin statistical model for the practical purpose of testing the assumption (Gujarati 1995). After log-transformation, Equation 6 becomes:

$$Ln\Delta Y_{it} = a + \beta_1 Ln\Delta L_{it} + \beta_2 Ln\Delta Pc_{it} + \beta_3 Ln\Delta Hc_{it} + \beta_4 Ln\Delta Dm_{it} + \beta_5 Ln\Delta \mathrm{Im}_{it} + u_{it} \quad (7)$$

where a (constant) stands for LnA.

Equation 7 can be used for the analysis of pooled cross-sectional and time series data in two ways: classical pooling to obtain invariant parameters for China in the period as a whole, and controlled pooling to obtain variant parameters for different regions and periods. Here, the analysis is confined to the former for illustrative purpose. Equation 7 is already a statistical model for classical pooling with its invariant parameters. To make clearer the distinction between the classical pooling and the controlled pooling, Equation 7 is rewritten in a simple summation form:

$$Ln\Delta Y_{it} = a + \sum_{K=1}^{K} \beta_K Ln\Delta X_{Kit} + u_{it} \quad (8)$$

where X stands for explanatory variable, k for the kth explanatory variable and k =1, 2, 3, 4, 5 in our case. a and β are the mean intercept and the mean slope, respectively (Dielman 1989).

Before running the regression, a technical problem has to be addressed: there are negative and zero values in both dependent and explanatory variables which cannot be log-transformed, and which are therefore treated as missing data.

$Ln(Y_{it}+w)$ or $Ln(X_{Kit}+w)$ could be used to transform negative values into positive ones, as suggested by Gujarati (1995:387).[11] However, the treatment of data would, especially in the multiple regression, distort the real relationship between variables in the model, for the value given to *w* could be very arbitrary. In this way, a researcher can virtually achieve almost any output desired simply by changing the value of *w*. It is preferable, therefore, to leave the data as they are without any 'manipulation' so as to 'let the data speak for themselves'. Such 'objectivism' in data treatment has actually a very significant advantage for the two-way net-increase effect model: it allows capture of the 'net increase effect' in the true sense since all the decrease effects are excluded in the regression procedure. The effect on growth of an increase of one million labourers could be very different from that of a decrease of one million labourers. By excluding all the decrease effects, we can now safely say that what is being captured in the model is the 'net increase effect' *per se*. The cost of this 'objectivism' in the data treatment is, first of all, the loss of a considerable number of degrees of freedom. This does not do much harm to the estimation due to the large size of the sample. Another cost is that the Kmenta model cannot be applied due to the unequal length of time periods. Therefore, ordinary least square (*OLS*) estimation is used with the normal statistical assumption that the errors u_{it} are independent and normally distributed $N(0,\sigma_u^2)$ for all individuals and in all time periods. The regression is run on SHAZAM, and the regression results are reported in Table 9.

[11] Here *w* is a positive number chosen in such a way that all the values of Y and X_k become positive.

Table 9 **Regression results on Equation 7** (dependent variable: *ln* net increase in GDP)

Variable	Coefficient
Constant	-0.02 (-0.09) [-0.08]
Ln ΔL	0.03 (0.09) [0.09]
Ln ΔPc	0.27*** (3.06) [2.59]
Ln ΔHc	0.48*** (4.92) [3.91]
Ln ΔDm	0.38*** (6.09) [6.03]
Ln ΔIm	0.09*** (3.47) [2.30]
F statistic	527.94***
$\bar{R}^2$	0.87
Degrees of freedom	386

Note: Numbers in parentheses under the coefficient estimates are associated t-ratios. Coefficient estimates with *** are significant at the 0.01 significance level. White heteroscedasticity consistent t-statistics are in square brackets[ ]. Durbin-Watson statistic is 2.008.

The intercept is negative and insignificant, indicating that the true intercept is in fact zero. This supports the assumption we made about the net increase effect. The estimated coefficients of the explanatory variables can be taken as elasticities of the change in the net increase in GDP with respect to the change in the net increase in the explanatory variables. For example, the coefficient of the increase in physical capital

input shows that a 1 per cent change in the net increase in physical capital input could lead to a 0.27 per cent change in the net increase in GDP, other factors held constant.

Taking the elasticities as equal to the effective shares in the GDP increase due to the increase in the contributing factors, as the conventional growth accounting did (Solow 1957; Benhabib and Jovanovic 1991), we can decompose the total GDP increase into shares contributed by the net increase in each of the factors using the formula:

$$\Delta X_k c = \frac{\Delta X_k s \Delta X_k r}{\Delta Y r} \qquad (9)$$

where $\Delta X_k c$ stands for the contribution of the net increase in the kth factor, $\Delta X_k s$ for the effective share (β) of the net increase in the kth factor, $\Delta X_k r$ for the average annual percentage change of the net increase in the kth factor, and $\Delta Y r$ for the average annual percentage change of the net increase in GDP. The decomposed contribution of each of the factors is reported in Table 10.[12]

Table 10 shows that conventional labour and capital inputs in 'physical units' have contributed only 25 per cent of the observed growth in post-1978 China while the rest could be attributed to 'non-physical' factors, or TFP if the conventional growth accounting terminology is used. It would be preferable, however, to leave aside the vague term of TFP, and decompose the contributions in the way shown

[12] The effective share (coefficient) tells us what percentage change in the net increase in GDP can be introduced by a 1 per cent change in the net increase in the contributing factor (other factors held constant), whereas the average annual percentage change shows what percentage change in the net increase in the contributing factor has actually occurred annually on average. Therefore, the sum of the weighted effective shares can be seen as the total contribution, and is, as could be expected, very close to the average annual percentage change of the net increase in GDP. We should be aware, however, that, in statistical terms, there is still 13 per cent of the net increase in GDP unexplained by the model, as indicated by the $\bar{R}^2$ value in Table 9.

above. The overwhelming aggregate contribution of market efficiency and human capital input (75 per cent) does not, however, indicate that China's market efficiency and human capital input has reached a high level. But what it does say is that they played an overwhelming role in promoting China's growth in the period concerned. What is measured here is a 'dynamic' net-increase effect rather than a 'static' accumulative-effect.

Table 10 **Decomposition of contributions to China's GDP growth from 1978 to 1993**

Variable (ΔX_k)	Effective share(β) ($\Delta X_k s$)	Annual change(%) ($\Delta X_k r$)	Contribution(%) ($\Delta X_k c$)
Increase in labour input	0.03	0.45	0.00
Increase in physical capital input	0.27	17.46	24.62
Increase in human capital input	0.48	13.36	33.48
Increase in efficiency through domestic market orientation	0.38	14.71	29.19
Increase in efficiency through international market orientation	0.09	27.40	12.90

Note: Average annual percentage change is calculated using the 'constant growth model' $Ln\Delta x_t = \beta_1 + \beta_2 t$, where x stands for the variable to be calculated.

Interpretations and remarks

The two-way net-increase effect model passes the econometric test, and the decomposition results can shed a great deal of light on the mechanics of China's rapid

economic growth in the transition or opening process. Here it is necessary to give some interpretations and remarks with regard to the model and its test results.

Growth determinants

As can be seen from Table 10, the contribution of 'inputs in physical unit' was attributed completely to physical capital input (25 per cent), so China should continue to mobilise domestic and international physical capital resources to maintain growth momentum. The increase in labour input had no significant impact on China's economic growth. This is consistent with the fact that China is a labour-surplus developing country with enormous rural unemployment or underemployment.[13] However, this conclusion does not deny that an increase in labour input can contribute to economic growth in some economic sectors. Reallocation of labour resources between sectors with different productivity levels plays an important role in improving efficiency and, therefore, in accelerating economic growth. It is here that market forces released in the re-linking or opening process can play a major role in transferring physical inputs including labour from less efficient primary industry to more efficient non-primary industry, and from less efficient state-owned enterprises to more efficient non-state owned enterprises, as shown in the next chapter. Therefore, China should pay attention to improving efficiency in input allocation and utilisation through market orientations.

The significant contribution to economic growth by human capital inputs (33 per cent) deserves attention from policymakers. China began to reform its education system in the late 1970s, and Deng Xiaoping declared that 'science and technology are the prime productive force' soon afterwards. As a result, government expenditure

on the improvement of human resources increased, elementary education strengthened, science and technology developed rapidly, and cultural and education levels were enhanced. All of these have contributed significantly to China's rapid economic growth, so China should continue to increase human capital input to maintain its growth momentum.[14] However, the experience of the Great Cultural Revolution in the 1960s shows that increased human capital inputs have to be allocated and utilised properly, otherwise they could block economic growth. It is here, once again, that market forces released in the re-linking or opening process play a major role in allocating the human capital input according to the needs of rational economic development rather than political campaigns and, therefore, in improving efficiency in human capital utilisation.

Apparently, improvements in efficiency in the allocation and utilisation of both physical and human resources through market orientations play an extremely important role in economic growth, as suggested by our regression and decomposition results in Tables 9 and 10. The significant contribution to GDP growth from the increase in efficiency through domestic and international market orientations (42 per cent) is consistent with the fact that China underwent a radical change from a de-linking to a re-linking development strategy, and began to open up to market systems both domestically and internationally. Four points need to be made, however, with regard to the two variables representing efficiency introduced by domestic and international market orientations in the model.

First, as seen from Chapter 3, most of the discussion on market forces in China has focused on the contradiction between use of free market forces and government

[13] It was estimated that unemployment rate in rural China was as high as 35 per cent in 1997.

[14] It is not a coincidence that quite a few recent studies showed that increased human capital inputs and enhanced cultural and educational level have also been an important determinant of the rise of the newly industrialised countries in East Asia.

intervention. Actually, this is only part, or even not the most important part, of the story, at least as far as transition or opening economies like China are concerned. The essence of transition or opening up is a shift from a comprehensive de-linking strategy aimed at eradicating all trade and commodity relations toward a comprehensive re-linking strategy aimed at making full use of trade and commodity relations. It is not a question of the extent to which governments intervene in 'free' markets. Actually, completely 'free' markets have been only a dream of some economists since Smith and have never become a reality, for government intervention has accompanied even the most marketised economies. Economic history showed that proper government intervention could facilitate the development of markets and, therefore, accelerate economic growth. The market variables in the model should not be, therefore, considered as a force contradicting government intervention. On the contrary, they should be considered as resulting from government intervention in China's special case, that is, from the reform and open-door policies adopted by the Chinese government. Government intervention under the re-linking strategy differs, however, from that under the de-linking strategy in that the former aims at making full use of market mechanisms while the latter aims at eradicating all trade and commodity relations.

Secondly, owing to the difference between goods produced in primary industry and those produced in non-primary industry, there will be an increasing market demand for goods produced in non-primary industry in due course as incomes increase (the Engel's Law). The increase in the demand can, therefore, lead to resource flows from primary industry with lower productivity to non-primary industry with higher productivity and, therefore, to improved efficiency in resource utilisation and sustained economic growth. In the case of China, that change occurred around

1985 when grain as the main good produced in primary industry underwent, as shown in the next chapter, a change from a normal good to an inferior good. That is, after 1985, people tended to buy less of grain as their income increased. By contrast, goods produced in non-primary industry have generally been normal goods. That is, people tended to buy more of them as their income increased. This explains why the strategy of re-linking with market systems led to the rise of the share of non-primary industry in China's GDP from 69 per cent in 1978 to 80 per cent in 1993. Considering that the productivity of non-primary industry is about 4 or 5 times as high as that of primary industry in China, it should not come as a surprise when we find a close correlation between the industry structural change and sustained economic growth in post-1978 China.

This is a very enlightening phenomenon since the correlation has occurred in every market-oriented developing country with successful development performance. The history of now-developed countries provides a case in point. Although we do not have historical data on developed countries throughout their whole development process, recent studies (see, for instance, Barro and Sala-I-Martin 1995) showed that the average annual per capita GDP growth rate was about 2 per cent in these countries in the period between 1870 and 1990, well above that in the rest of the world, and that the share of non-primary industry in GDP had risen to between 96 per cent (Italy, Australia, Holland, and Denmark) and 98 per cent (the United Kingdom, the United States, and Germany) in these countries by 1989. Another case is the NICs in East Asia, which have been in an accelerated developing process for the past few decades. The average annual GDP growth rate was, for instance, between 6.6 per cent (Malaysia) and 8.8 per cent (Korea) in the NICs in the period between 1960 and 1993, well above the world average (3.7 per cent), and the share of non-primary industry in

GDP had risen to between 83 per cent (Malaysia) and 93 per cent (Korea) in the NICs by the end of 1993.[15] Apparently, market forces play a key role in the close correlation between industry structural change and sustained economic growth.

Thirdly, as shown in Table 10, improved efficiency though the domestic market orientation made a much greater contribution to China's GDP growth than that through the international market orientation. This is consistent with the large size of China's population and territory. China is different from the 'four small dragons' in East Asia which have to rely heavily on international markets owing to the small size of their population and territory. In 1993, for instance, the ratio of the value of exports and imports to GDP was 0.41 in China, whereas it was 2.85 in Singapore, and 2.50 in Hong Kong. Therefore, while continuing to develop its international markets, China should pay major attention to making full use of its huge domestic markets so as to ensure the sustainability of economic growth.

Finally, we should be aware of the limitations of the model. While it is convenient to take the increase in domestic and international trade as representing China's re-linking with market systems, for instance, it should be kept in mind that the re-linking process has many more dimensions than increases in domestic and foreign trade, such as the development of finance markets, labour markets, and science and technology markets. The contribution to economic growth by re-linking with, or opening up to, market systems might well be underestimated if it were measured only by the two market variables in the model. Owing to data constraints, however, it is impossible to find the 'best' proxies for market variables, and the same is true of input variables in the model. Therefore, all the proxies in the model do not match exactly what they are supposed to represent. The coefficients in the regression

[15] International Economic Databank, Australian National University.

output illustrated in Table 9 and the decomposed contributions illustrated in Table 10 should be considered only as rough estimates. This is true of not only the study, but also of all other empirical studies of such an involved process as economic growth. Nevertheless, the empirical estimation strongly suggests that market forces released in the re-linking or opening process contributed significantly to the rapid economic growth in post-1978 China. As long as China continues to carry out reform and open-door policies to improve efficiency in resource allocation and utilisation through market orientations, while increasing capital inputs, especially human capital input, China can maintain its growth momentum.

Improvements in people's livelihood

It was shown above that the long-run supply curve is not vertical in labour-surplus developing countries, especially those in a transition or opening process, so increased market demand can play an important role in economic growth. Given that increased demand is different from quantity demanded, and is determined by non-price factors, especially by the increase in people's disposable income and consumption, it may be argued that economic growth cannot sustain without improvements in people's livelihood. Sustained economic development should be, therefore, an integrated process involving not only GDP growth but also improvements in people's livelihood. This argument gains strong support from China's experience in the pre-and post-1978 periods.

China's unsustainable economic growth in the pre-1978 period was correlated with slow improvements in people's livelihood. In the 26 years from 1952 to 1978, for instance, the average annual per capita real wages of staff and workers increased by only 10.3 per cent, from 445 *yuan* to 490.84 *yuan*. From 1965 to 1978, average

annual per capita real income rose only by 25 per cent, from 132 *yuan* to 165 *yuan*. As far as the difference between urban and rural residents was concerned, the latter were worse off than the former: average annual per capita real income of rural residents increased only by 20.4 per cent, from 110.17 *yuan* to 132.64 *yuan* while average annual per capita real income of urban residents increased by 26.8 per cent, from 313.8 *yuan* to 397.8 *yuan*[16]. Until the late 1970s and early 1980s, the majority of China's 1 billion population were still very poor after 30 years of socialist development. Moreover, more than 200 million people (mainly in rural areas in China's western provinces) lived in absolute poverty without sufficient food, clothing, and housing. In 1981, according to World Bank statistics, there were 199 million Chinese living below the absolute poverty line (World Bank 1996). As a result, people's consumption of basic consumer goods did not increase very much, or even decreased slightly. As Table 11 shows, from 1957 to 1978, China's per capita consumption of selected basic consumer goods witnessed declines in grain, edible vegetable oil, beef and mutton, poultry, and aquatic products, and only a slight increase for pork, poultry, fresh eggs, sugar, cigarettes, liquor, tea, cloth, woollen fabric, and silk and satin. The decreased consumption deprived the economy of growth momentum, and contributed to the unsustainability of China's growth performance over that period.

[16] The increases in wages and income are calculated at 1952 constant prices. Per capita income of urban residents refers to 'total income' in Chinese terms, and is the 'total actual cash income, including regular or fixed income and one-off income. Circulating income such as withdrawal from bank deposits, loans borrowed from relatives or friends, repayment of loans received and various temporary collection of money is excluded'. Per capita income of rural residents refers to 'net income' in Chinese terms, and is the 'total income after the deduction of expenses, which can be spent for investments for production and non-production construction and for improvement of daily life, while loan income borrowed from banks or friends and relatives is not included' (*Statistical Yearbook of China 1994*:291). Per capita income are calculated using the formula: $Ia = \frac{Ir\,\mathrm{Pr} + IrPu}{P}$, where *Ia* stands for average

Table 11 **Per capita consumption of selected basic consumer goods in China, 1957–1978**

Goods	1957	1962	1965	1970	1975	1978
Grain (kg)	203.06	164.63	182.84	187.22	190.52	195.46
Edible vegetable oil (kg)	2.42	1.09	1.72	1.61	1.73	1.60
Pork (kg)	5.08	2.22	6.29	6.02	7.63	7.67
Beef and mutton (kg)	1.11	0.79	1.02	0.82	0.72	0.75
Poultry (kg)	0.50	0.38	0.36	0.32	0.35	0.44
Fresh eggs (kg)	1.26	0.77	1.42	1.32	1.63	1.97
Aquatic products (kg)	4.34	2.96	3.33	2.94	3.26	3.50
Sugar (kg)	1.51	1.60	1.68	2.06	2.26	3.42
Cigarettes (packs)	16.90	9.70	16.15	20.52	26.22	30.82
Liquor (kg)	1.37	1.14	1.30	1.51	2.18	2.57
Tea (kg)	0.12	0.09	0.07	0.09	0.12	0.14
Cloth (m)	6.82	3.70	6.17	8.11	7.62	8.03
Woollen fabric (m)	0.01	0.02	0.03	0.04	0.06	0.08
Silk and satin (m)	0.10	0.12	0.13	0.25	0.25	0.28

Notes: (1) Consumption includes materials supplied both through markets and through subsistence living. Figures for grain, edible vegetable oil, pork, beef and mutton, poultry, fresh eggs, aquatic products, sugar, cloth, woollen fabric, silk and satin include processing consumption that consumes those materials, such as grain, edible vegetable oil, pork, beef and mutton, and sugar consumption in processing food, as well as cloth, woollen fabric, silk and satin consumption in processing clothing, shoes and caps. (2) Grain refers to trade grain, edible vegetable oil includes oil-bearing crops converted into oil, and cloth includes cotton cloth, cotton/chemical fibre-blend cloth and chemical fibres.
Source: *Statistical Yearbook of China 1994*, Beijing.

By contrast, China's sustained economic growth since 1978 has been accompanied by rapid improvement in people's livelihood. Calculated at 1978 constant prices, as shown in Table 12, the average annual per capita real wages of staff and workers increased by 1.86 times in the period between 1978 and 1993, from 615 *yuan* to 1143.34 *yuan*. The average annual per capita real income increased by 3.3 times, from 166.25 *yuan* to 548.73 *yuan*. As far as the difference between urban and rural residents is concerned, the latter witnessed a faster growth than the former: average annual per capita real income of rural residents increased by 3.39 times, from 133.6 *yuan* to 452.27 *yuan* while average annual per capita real income of urban

annual per capita income, *Ir* for annual per capita income of rural residents, *Iu* for annual per capita

residents increased by 2.5 times, from 316 *yuan* to 795.1 *yuan*. The rapid increase in incomes triggered increases in people's consumption. As shown in Table 13, from 1978 to 1993, average annual per capita real consumption (calculated at 1978 constant prices) increased by 2.8 times, from 175 *yuan* to 485.6 *yuan*. Rural residents' annual per capita real consumption increased by 2.7 times, from 132 *yuan* to 352.3 *yuan*, while urban residents' annual per capita real consumption increased by 2.5 times, from 383 *yuan* to 956.4 *yuan*. Comparing the post-1978 period with the earlier period, as shown in Figures 11 and 12, there was a sharp rise in real incomes and real consumption from the late 1970s onwards.

Table 12 **Increase in per capita real wages and real income in China, 1978–1993** (*yuan* at 1978 constant prices)

Year	Wage	Average income	Urban income	Rural income
1978	615.00	166.25	316.00	133.57
1980	695.29	226.51	401.32	184.46
1985	855.87	387.24	510.66	348.88
1990	962.03	460.64	625.05	401.64
1992	1067.54	516.48	721.43	438.24
1993	1143.34	548.73	795.06	452.27

Note: Urban income refers to annual per capita income available for the living of urban residents, and rural income refers to annual per capita net income of rural residents.
Source: *Statistical Yearbook of China 1984–1994*, Beijing.

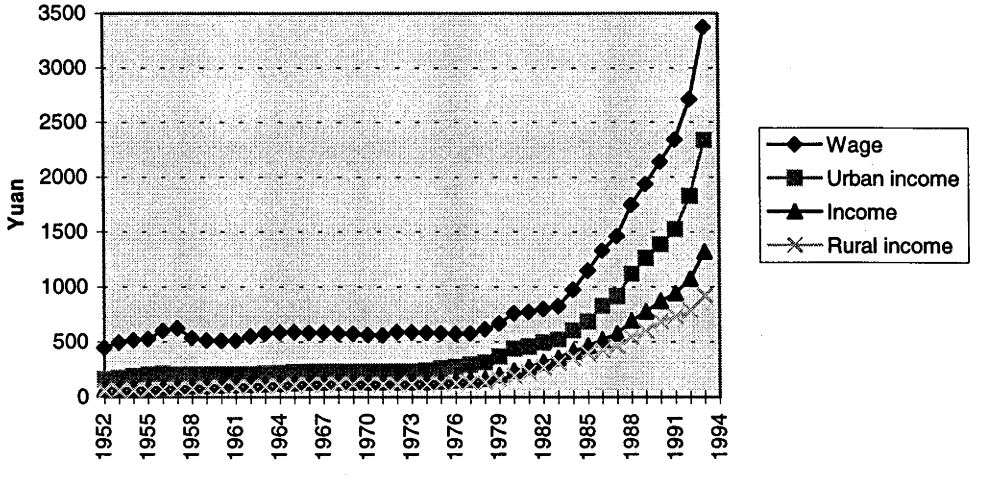
income of urban residents, *P* for population, *Pr* for rural population, and *Pu* for urban population.

Table 13 **Per Capita real consumption in China, 1978-1993** (*yuan* at 1978 constant prices)

Year	All residents	Rural residents	Urban residents
1978	175.00	132.00	383.00
1979	186.73	141.11	399.09
1980	204.40	154.84	427.43
1981	218.58	166.98	464.20
1982	229.60	179.65	459.60
1983	245.35	196.02	468.41
1984	272.30	220.31	498.28
1985	308.18	250.80	541.56
1986	321.30	256.87	580.25
1987	339.68	267.70	634.25
1988	362.95	284.06	679.44
1989	359.98	281.42	665.65
1990	367.85	280.10	704.72
1991	398.30	299.11	770.21
1992	444.50	327.89	870.18
1993	485.60	352.31	956.35

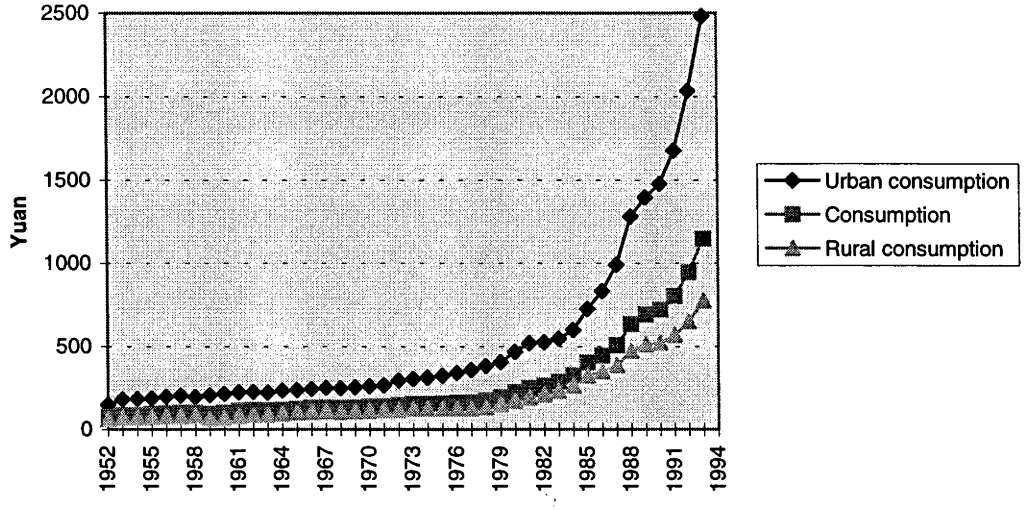
Source: *Statistical Yearbook of China 1994*, Beijing.

Figure 11 **Increase in per capita real income in China, 1952–1993** (*yuan* at current prices)



Source: *Statistical Yearbook of China 1984–1994*, Beijing.

Figure 12 **Increase in per capita real consumption in China, 1952–1993** (*yuan* at current prices)



Source: *Statistical Yearbook of China 1984–1994,* Beijing.

The rise in consumption covered many dimensions. As could be expected, the consumption of basic consumer goods increased. As Table 14 shows, per capita consumption of all the selected basic consumer goods increased quite remarkably, especially edible vegetable oil (by 3.9 times), pork (by 2.38 times), beef and mutton (by 2.73 times), poultry (by 5.25 times), fresh eggs (by 3.93 times), aquatic products (by 2.1 times), sugar (by 1.58 times), and liquor (by 5.04 times). The most distinctive feature of the rising consumption in the period was, however, not the increase in these basic consumer goods, but the rapid increase in people's possession of durable consumer goods. Up to 1978, the durable consumer goods available to ordinary Chinese residents were only bicycles, clocks, wristwatches, radio sets, sewing machines, and cameras. Urban residents looked upon them as the most valuable luxuries, and very few rural residents could afford to buy them. Ordinary Chinese

residents could never aspire to own TV sets, recorders, refrigerators, washing machines, electric fans, and motorcycles. As China opened up, all these durable consumer goods were introduced from abroad to domestic markets, and the demand for these goods rose dramatically along with the increase in people's income. From 1978 onwards, as Tables 15, 16, and 17 show, these durable consumer goods increasingly entered ordinary households, urban and rural alike. Meanwhile, what had been conventional durable consumer goods possessed by ordinary residents before 1978 either increased enormously (especially in rural China), or were increasingly replaced by new durable consumer goods (especially in urban China).

Table 14 **Per capita consumption of selected basic consumer goods in China, 1978–1992**

Goods	1978	1980	1983	1985	1987	1990	1991	1992
Grain (kg)	195.50	213.80	231.50	251.70	248.90	238.80	234.50	235.90
Edible vegetable oil (kg)	1.60	2.30	4.01	5.08	5.60	5.67	5.89	6.29
Pork (kg)	7.67	11.16	12.30	13.84	14.40	16.60	17.40	18.20
Beef and	0.75	0.83	1.10	1.31	1.43	1.73	1.79	2.05
Mutton (kg)	0.44	0.80	1.18	1.56	1.71	1.73	1.98	2.31
Poultry (kg)	1.97	2.27	2.95	4.93	5.50	6.27	7.10	7.75
Fresh eggs (kg)	3.50	3.41	4.00	4.84	5.49	6.53	6.79	7.29
Aquatic products (Kg)	3.42	3.83	4.46	5.57	6.59	4.98	4.98	5.42
Sugar(kg)	30.80	40.60	48.97	60.61	65.70	71.50	70.90	70.00
Cigarettes (packs)	2.57	3.41	5.79	7.61	10.40	11.60	11.90	12.90
Liquor (kg)	0.14	0.21	0.23	0.30	0.34	0.37	0.36	0.39
Tea (kg)	8.03	10.10	10.30	11.60	11.20	10.60	10.30	10.70
Clothe (m)	0.08	0.14	0.20	0.29	0.28	0.23	0.26	0.25
Woollen fabric (m)	0.28	0.45	0.56	0.85	0.86	0.64	0.68	0.66
Silk and satin (m)	78.00	80.00	83.00	85.00	87.00	90.00	91.00	92.00

Notes: (1) Consumption includes materials supplied through markets and provided on a subsistence basis. Figures for grain, edible vegetable oil, pork, beef and mutton, poultry, fresh eggs, aquatic products, sugar, cloth, woollen fabric, silk and satin include processing consumption that consume those materials, such as grain, edible vegetable oil, pork, beef and mutton, and sugar consumption in processing food, as well as cloth, woollen fabric, silk and satin consumption in processing clothing, shoes and caps. (2) Grain refers to trade grain, edible vegetable oil includes oil-bearing crops converted into oil, and cloth includes cotton cloth, cotton/chemical fibre-blend cloth and chemical fibres.
Source: *Statistical Yearbook of China 1994*, Beijing.

Table 15 **Possession of selected durable consumer goods in China, 1978–1992** (per 100 persons)

Goods	1978	1980	1985	1987	1989	1990	1991	1992
Sewing machines	3.50	4.70	9.40	11.00	12.20	12.30	12.60	12.80
Bicycles	7.70	9.70	21.40	27.10	32.80	34.20	36.20	38.50
Electric fans	1.00	1.40	6.10	10.40	15.60	17.60	19.80	22.00
Washing machines	0.00	0.00	2.90	5.30	7.80	8.40	9.20	10.00
Refrigerators	0.00	0.00	0.40	1.10	2.30	2.60	3.00	3.40
Television sets	0.30	0.90	6.70	10.70	14.90	16.20	17.80	19.50
Tape recorders	0.20	0.50	3.50	6.50	9.60	10.40	11.30	12.20
Cameras	0.50	0.60	1.10	1.50	1.90	2.00	2.10	2.30

Source: *Statistical Yearbook of China 1984–1994*, Beijing.

Table 16 **Urban household possession of selected durable consumer goods in China, 1981–1993** (per 100 households)

Goods	1981	1983	1985	1989	1991	1992	1993
Bicycles	135.90	159.93	152.27	184.68	158.51	190.48	197.16
Sewing machines	70.41	76.21	70.82	70.35	66.43	65.92	66.58
Electric fans	42.62	63.61	73.91	128.68	143.48	146.04	151.64
Washing machines	6.31	29.08	48.29	76.21	80.58	83.41	86.36
Refrigerators	0.22	1.65	6.58	36.47	48.70	52.60	56.68
Black&white TV sets	57.06	80.58	66.86	55.71	43.93	37.71	35.92
Colour TV sets	0.59	2.57	17.21	51.47	68.41	74.87	79.46
Tape recorders	12.97	27.11	41.16	67.07	70.34	73.59	75.53
Cameras	4.29	7.28	8.52	17.27	21.32	24.32	26.48

Source: *Statistical Yearbook of China 1984–1994*, Beijing.

Table 17 **Rural household possession of selected durable consumer goods in China, 1978–1993** (per 100 households)

Goods	1978	1980	1985	1987	1991	1992	1993
Bicycles	30.73	36.87	80.64	98.52	121.64	125.66	133.39
Sewing machines	19.80	23.31	43.21	49.79	55.84	57.31	61.31
Clocks	24.33	30.95	37.32	46.92	47.95	52.21	62.56
Wristwatches	27.42	37.58	136.32	161.22	160.98	164.94	170.08
Electric fans	..	..	9.66	19.76	53.30	60.08	71.79
Washing machines	..	..	1.90	4.78	10.99	12.23	13.82
Refrigerators	..	..	0.06	0.31	1.64	2.17	3.05
Motorcycles	..	..	..	0.56	1.10	1.42	2.14
Radio sets	17.41	33.54	54.19	52.98	32.41	31.95	32.22
Black & white TV sets	..	0.30	10.94	22.04	47.53	52.44	58.3
Colour TV sets	..	..	0.80	2.34	6.44	8.08	10.86
Tape recorders	..	..	4.33	9.68	19.64	20.95	24.24
Cameras	..	..	..	0.50	0.87	1.00	0.99

Note: .. denotes that data are not available.
Source: *Statistical Yearbook of China 1984–1994,* Beijing.

Besides durable consumer goods, people's demand for better living conditions rose significantly with the increase in their incomes, and their living space increased remarkably. From 1978 to 1993, as Table 18 shows, urban residents' per capita living space increased by 2.1 times, from 3.6 square meters to 7.5 square meters, while rural residents' per capita living space increased by 2.6 times, from 8.1 square meters to 20.7 square meters. The increasing demand for durable consumer goods as well as for living space stimulated the rapid growth of secondary industry, and contributed significantly to China's rapid industry structural change, as shown in the following chapter.

Table 18 **Increase in urban and rural residents' per capita living space in China, 1978–1993** (square meters)

Year	Urban residents	Rural residents
1978	3.6	8.1
1980	3.9	9.4
1983	4.6	11.6
1984	4.9	13.6
1985	5.2	14.7
1986	6.0	15.3
1987	6.1	16.0
1988	6.3	16.6
1989	6.6	17.2
1990	6.7	17.8
1991	6.9	18.5
1992	7.1	18.9
1993	7.5	20.7

Source: *Statistical Yearbook of China 1994,* Beijing.

The increase in incomes also stimulated people's demand for education, culture and arts, medical care, and entertainment, which led, together with the rise of China's international tourism, to the rapid growth of tertiary industry. Meanwhile, as shown in Table 19, the growth of various service industries was in turn an additional indicator of the improvement in the quality of people's life. By 1995, the majority of China's 1.3 billion population had moved out of poverty, and the quality of their livelihood had improved significantly. According to statistics provided by the World Bank and the State Statistical Bureau of China, people living under the absolute poverty line in China declined from 199 millions in 1981, to 98 millions in 1990, and to 60 millions in 1995.[17] The rapid improvement in people's livelihood increased market demand, provided a growth momentum for the economy, and contributed significantly to China's sustained economic growth in the post-1978 period.

[17] International Economic Databank, ANU; China TV News (12 August 1996), Beijing.

Table 19 **Some indicators of improving quality of people's life in China, 1978–1993**

Indicators (per 10000 persons)	1978	1980	1985	1990	1993
University students	8.90	11.60	16.10	18.04	21.40
Hospital beds	19.28	20.08	21.06	22.95	24.00
Doctors	10.73	11.68	13.35	15.42	15.80
Food/sale service networks	13.04	20.49	100.80	103.70	..
Workers in food/sale services	63.14	93.90	238.70	251.10	..
Green area (hectares)	10.60	9.60	13.70	32.20	34.90

Note: .. denotes that data are not available.
Source: *Statistical Yearbook of China 1984–1994,* Beijing.

What has led to the difference in people's livelihood in the two periods? Once again, it is the re-linking with market systems or opening up to market forces. In the pre-1978 period, socialist planning system and public ownership necessitated the rigid control over people's disposable income in both urban and rural areas so as to ensure massive investment in 'socialist construction' on the one hand, and socialist equality in people's living standard on the other. People remained relatively poor, and their demand for consumer goods were depressed for decades. In the process of opening up to market forces, the rigid socialist planning system was relaxed, ownership of means of production was diversified, and there emerged numerous opportunities for people to become richer and richer. One of the opportunities can be found, for instance, in the rapid development of non-primary industry (especially in rural China) and non-public ownership introduced by market orientations, as shown in the next chapter.

5 Active participation and uneven sectoral growth

China's development performance has been characterised not only by rapid economic growth, but also by uneven sectoral growth and uneven regional development. Especially in recent years, uneven sectoral growth and uneven regional development accelerate, and draw increasing attention from policymakers and scholars alike. In this chapter, attention is focused on uneven sectoral growth, leaving uneven regional development to the next. First, the main dimensions of uneven sectoral growth are examined. Then, the model presented in the last chapter is used to analyse how uneven sectoral growth occurred in the process of active participation in the global market economy or opening up to market systems. Lastly, the significance and consequences of uneven sectoral growth are discussed.

Winners and losers

If the process of economic development is seen as a race and the various sectors in an economy as participants, the fast growing sectors can be considered as winners and the slowly growing sectors as losers. This metaphor can be seen as particularly apt when the determinants of uneven sectoral growth are explained in a competitive market context in the following section. Before embarking on that task, however, we have to identify which are the winners and which are the losers in the race in the first place.

A transition or opening economy consists of various sectors which can be classified in two ways: by what they produce, and by who owns them. The former

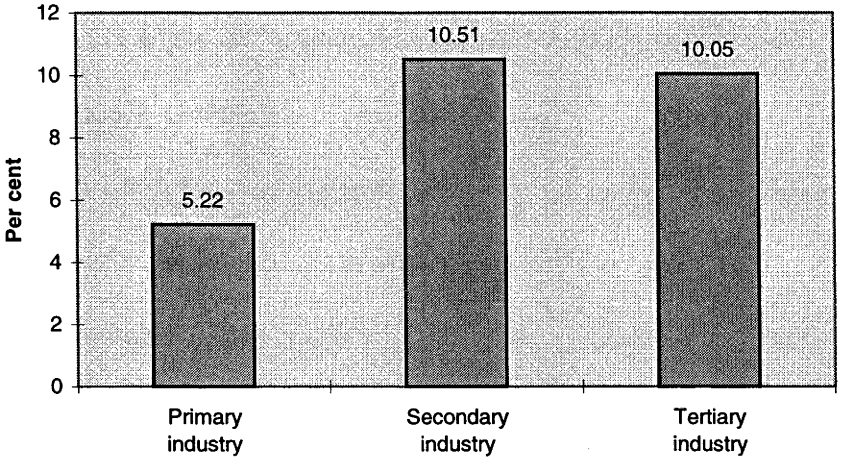
divides an economy into different industry sectors such as primary industry, secondary industry, tertiary industry, and the subsectors within each of them. The latter divides an economy into different forms of ownership such as state ownership, collective ownership, private ownership, and the subdivisions within each of them. China's uneven sectoral growth occurred not only between industry sectors but also between forms of ownership.

Uneven growth between industry sectors

After China opened up, uneven growth occurred almost everywhere between individual industry sectors and subsectors, but only the most significant are examined here. Figures 13 and 14 present an overall picture of uneven growth between three main industry sectors in China in the period between 1978 and 1993. They show that secondary industry and tertiary industry grew much faster than primary industry in terms of both output and employment.[1] The average annual growth rate of secondary industry GDP was 10.51 per cent, that of tertiary industry GDP was 10.05 per cent, whereas the primary industry GDP growth rate was only 5.22 per cent. Meanwhile, the average annual growth rate of labourers employed in secondary industry was 4.5 per cent, and that in tertiary industry was 6.6 per cent, whereas the growth rate of labourers employed in primary industry was only 1.2 per cent.

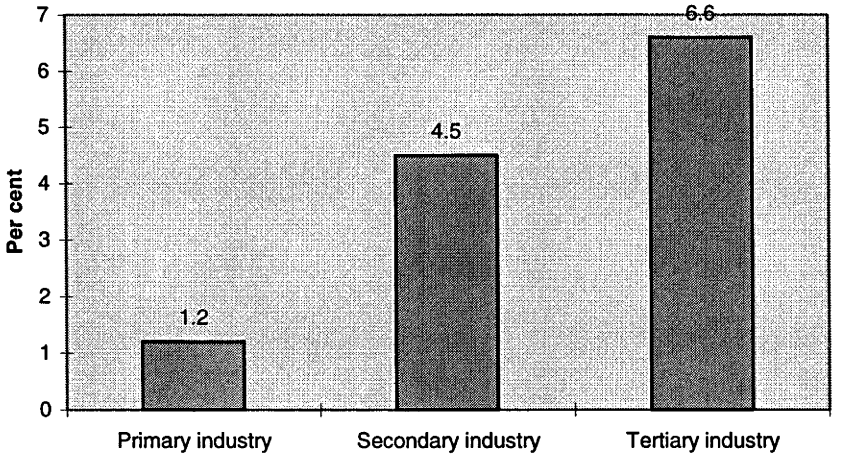
[1] Primary industry is equal to agriculture in China.

Figure 13 **Average annual GDP growth rate of main industry sectors in China, 1978–1993** (%)



Note: Calculated at 1978 constant prices.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

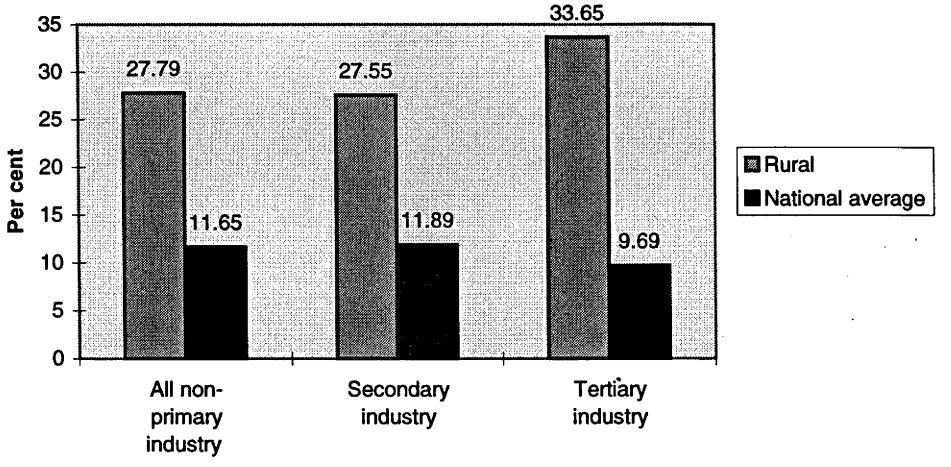
Figure 14 **Average annual growth rate of labourers employed in China's main industry sectors, 1978–1993** (%)



Source: *Statistical Yearbook of China 1983–1994,* Beijing.

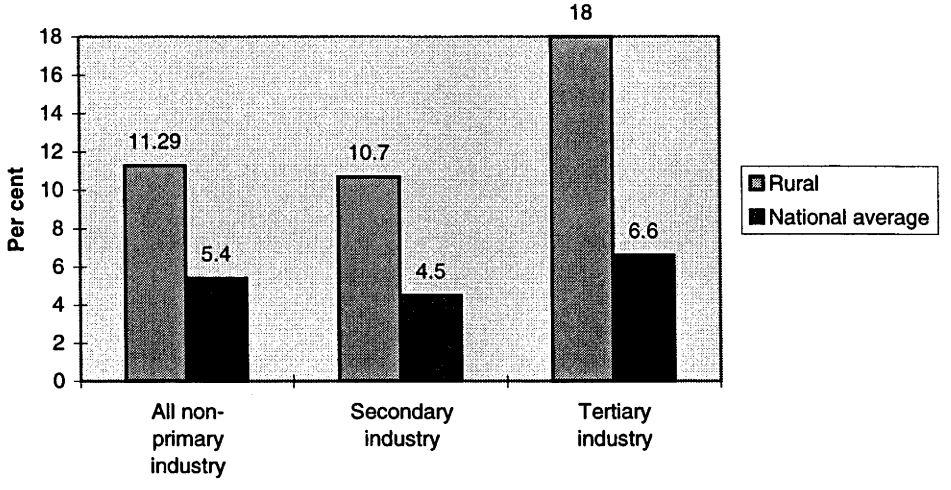
The rapid growth of non-primary industry was rooted in rural China. Rural non-primary industry grew, as Figure 15 shows, much faster than the nation's non-primary industry as a whole. From 1978 to 1993, the average annual growth rate of the output value of rural non-primary industry was 27.8 per cent, 2.4 times the nation's average (11.6 per cent), that of rural secondary industry was 27.6 per cent, 2.3 times the nation's average (11.9 per cent), and that of rural tertiary industry was 33.7 per cent, 3.5 times the nation's average (9.7 per cent). Meanwhile, as shown in Figure 16, the number of labourers employed in rural non-primary industry also grew faster than in the nation's non-primary industry as a whole. From 1978 to 1993, the average annual growth rate of labourers employed in rural non-primary industry was 11.3 per cent, 2.1 times the nation's average (5.4 per cent), that in rural secondary industry was 10.7 per cent, 2.4 times the nation's average (4.5 per cent), while that in rural tertiary industry was 18 per cent, 2.7 times the nation's average (6.6 per cent).

Figure 15 **Average annual growth rate of the output value of China's rural non-primary industry as compared with the national average, 1978–1993** (%)



Note: Calculated at 1978 constant prices.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

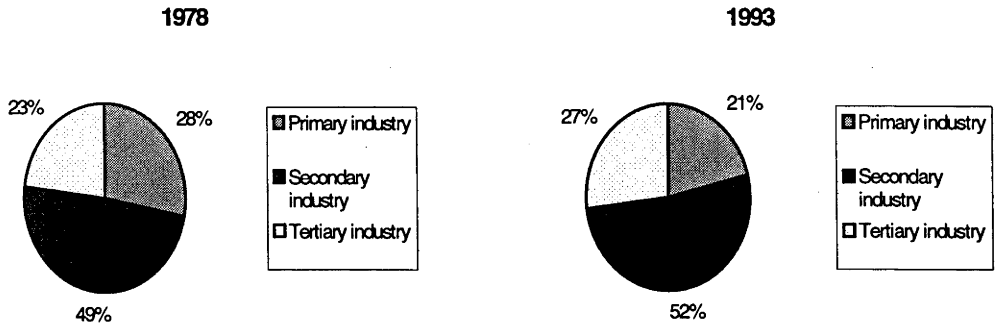
Figure 16 **Average annual growth rate of labourers employed in China's rural non-primary industry as compared with the national average, 1978–1993** (%)



Source: *Statistical Yearbook of China 1983–1994,* Beijing.

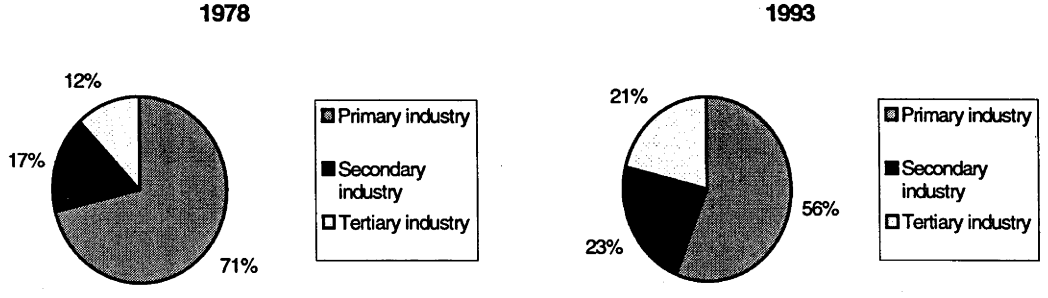
Uneven growth between the three main industry sectors inevitably resulted in radical changes in industry structure. From 1978 to 1993, as shown in Figure 17, the share of secondary industry in GDP rose from 49 per cent to 52 per cent, and that of tertiary industry rose from 23 per cent to 27 per cent, whereas that of primary industry declined from 28 per cent to 21 per cent. Meanwhile, as shown in Figure 18, the share of secondary industry in total employment rose from 17 per cent to 23 per cent, that of tertiary industry rose from 12 per cent to 21 per cent, and that of primary industry declined from 71 per cent to 56 per cent.

Figure 17 **Changing shares of main industry sectors in China's GDP, 1978–1993** (%)



Source: *Statistical Yearbook of China 1983–1994,* Beijing.

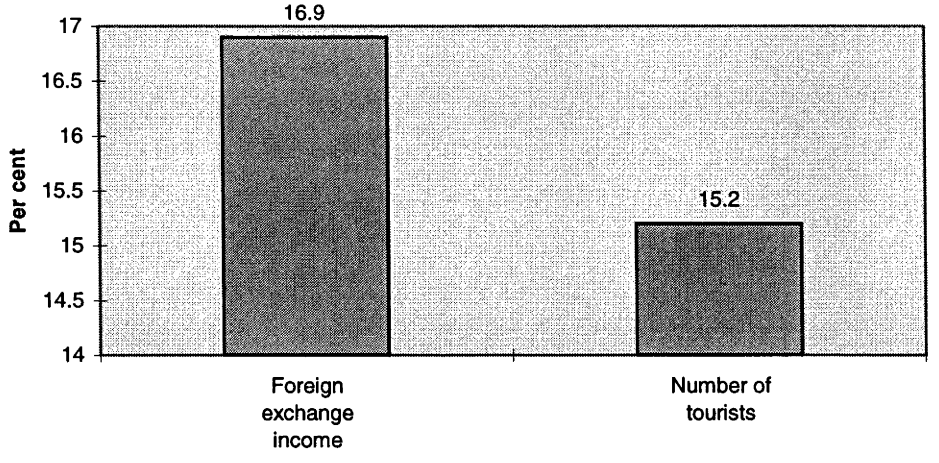
Figure 18 **Changing shares of main industry sectors in China's employment, 1978–1993** (%)



Source: *Statistical Yearbook of China 1983–1994,* Beijing.

Worthy of notice is the rise of new sectors in non-primary industry, especially the rise of international tourism (shown in Figure 19). International tourism existed in China well before 1978, but it is only since 1978 that it has become an industry sector in the true sense and achieved rapid growth.

Figure 19 **Rapid growth of international tourism in China, 1980–1993** (average annual growth rate %)



Note: Calculated at current prices.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

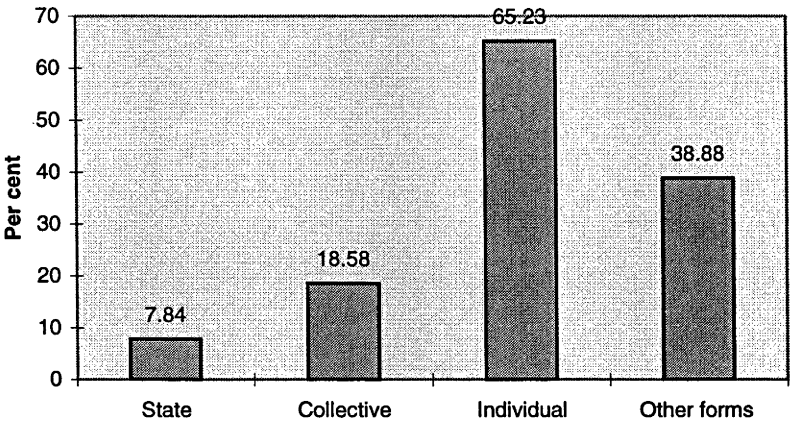
Uneven growth between forms of ownership

Uneven growth between forms of ownership (state, collective, and private) existed before 1978, but the direction was exactly opposite to that experienced in the post-1978 period. In the pre-1978 period, public ownership (including both state and collective) grew much faster than non-public ownership due to government intervention, and increasingly replaced the latter. In the post-1978 period, the opposite happened: non-public ownership reappeared and grew rapidly, whereas public ownership as a whole declined.

Individual farming in the form of the household responsibility system grew rapidly after 1978, and had replaced the cooperatives and communes in primary industry all over the country by the early 1980s. From then onwards, uneven growth between forms of ownership occurred mainly in China's non-primary industry, and

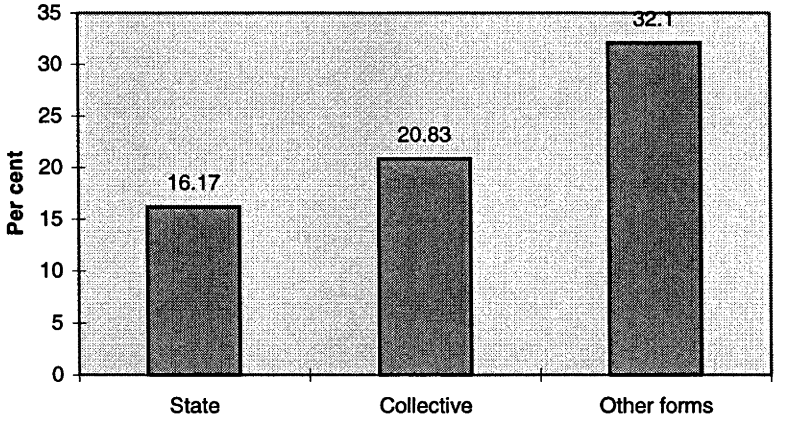
one of the most remarkable phenomena was the decline of state-owned enterprises previously dominant in non-primary industry. This occurred everywhere in non-primary industry, but only the most significant are highlighted. In the post-1978 period, as shown in Figure 20, the average annual growth rate of the output value of industry under state ownership was only 7.8 per cent, while that under collective ownership was 18.6 per cent, that under individual ownership was 65.2 per cent, and that under other forms of ownership was 38.9 per cent. As shown in Figure 21, the average annual output growth rate of the output value of the construction industry under state ownership was 16.2 per cent, that under collective ownership was 20.8 per cent, that under other forms of ownership was 32.1 per cent. As shown in Figure 22, the average annual growth rate of retail sales under state ownership was 12.1 per cent, lower than that under joint ownership (39.4 per cent) and that under individual ownership (45.8 per cent). Although it was a little bit higher than that under collective ownership (10.9 per cent), it was still lower than that under all the forms of non-state ownership as a whole (16.5 per cent). Meanwhile, employment in non-primary industry under state ownership also grew much slower than under non-state ownership. As shown in Figure 23, the average annual growth rate of labourers in non-primary industry under state ownership was 2.6 per cent, that under collective ownership was 6.6 per cent, that under individual ownership was 42.2 per cent, and that under other forms of ownership was 15.9 per cent.

Figure 20 **Average annual growth rate of the output value of main forms of ownership in China's industry, 1978–1993** (%)



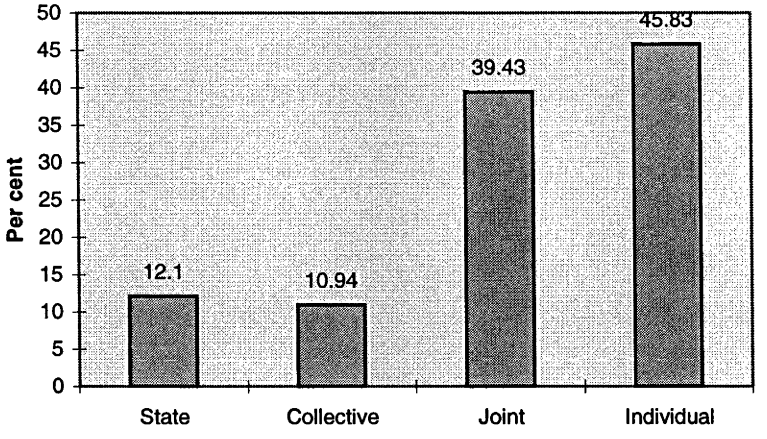
Notes: (1) Calculated at 1978 constant prices; (2) Other forms of ownership mainly include foreign-funded and overseas Chinese-funded enterprises, joint management enterprises, and stock-sharing enterprises.
Source: Statistical Yearbook of China 1983–1994, Beijing.

Figure 21 **Average annual growth rate of the output value of main forms of ownership in China's construction industry, 1980–1993** (%)



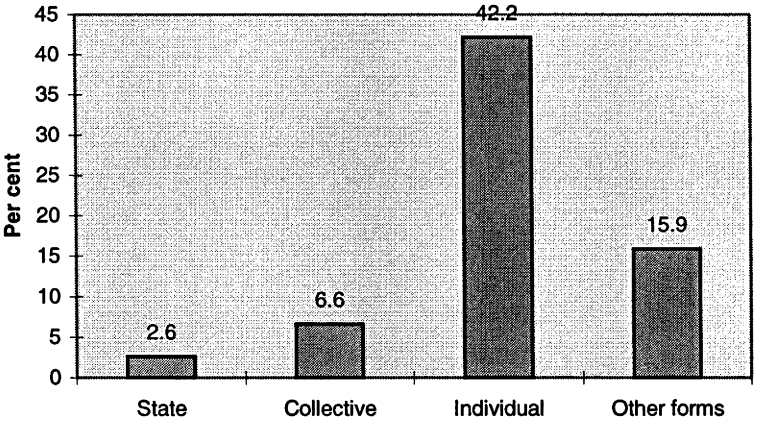
Notes: (1) Calculated at 1980 constant prices; (2) Other forms of ownership refers to miscellaneous rural construction teams and affiliated construction units.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

Figure 22 **Average annual growth rate of retail sales of main forms of ownership in China, 1978–1993** (%)



Note: Calculated at current prices.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

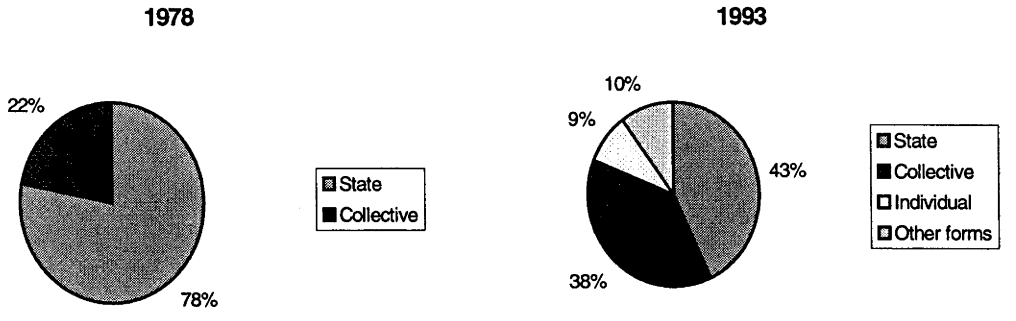
Figure 23 **Average annual growth rate of labourers employed in main forms of ownership in China's non-primary industry, 1978–1993** (%)



Note: Other forms of ownership mainly include foreign-funded and overseas Chinese-funded enterprises, joint management enterprises, and stock-sharing enterprises.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

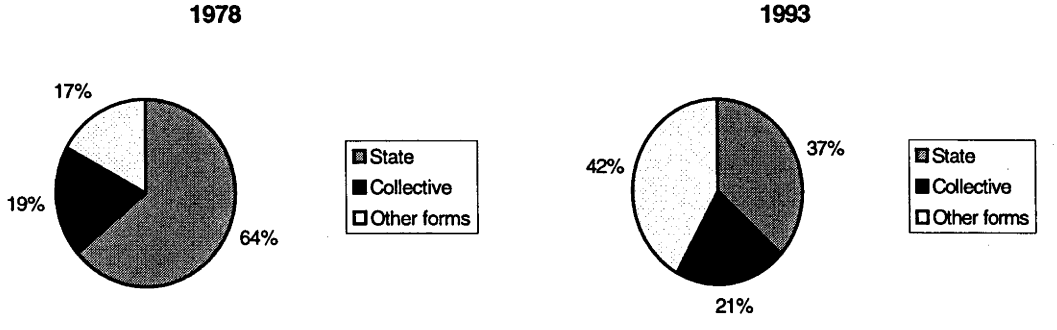
Rapid growth of non-state ownership inevitably led to radical changes in the structure of ownership in China's non-primary industry in the post-1978 period. The share of state-owned enterprises in the output value of industry fell from 78 per cent to 43 per cent, whereas that under collective ownership rose from 22 per cent to 38 per cent, that under individual ownership rose from zero to 8 per cent, and that under other forms of ownership rose from zero to 10 per cent (Figure 24). The share of state-owned enterprises in the output value of construction industry fell from 64 per cent to 37 per cent, whereas that under collective ownership rose from 19 per cent to 21 per cent, and that under other forms of ownership rose from 17 per cent to 42 per cent (Figure 25). The share of state-owned enterprises in total value of retail sales declined from 55 per cent to 40 per cent, that under collective ownership also declined from 43 per cent to 26 per cent, whereas that under joint ownership rose from zero to 1 per cent, that under individual ownership rose from zero to 23 per cent, and that under other forms of ownership rose from 2 per cent to 10 per cent (Figure 26). Meanwhile, ownership structural changes also occurred in employment. The share of state-owned enterprises in the total employment of non-primary industry fell from 60 per cent to 36 per cent, whereas that under collective ownership rose from 39 per cent to 51 per cent, that under individual ownership rose from 1 per cent to 10 per cent, and that under other forms of ownership rose from zero to 3 per cent (Figure 27).

Figure 24 **Changing shares of main forms of ownership in the output value of China's industry, 1978–1993** (%)



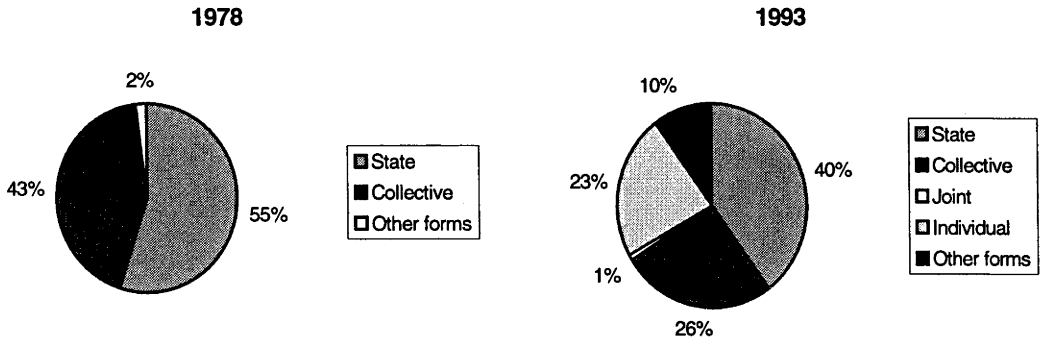
Note: Other forms of ownership mainly include foreign-funded and overseas Chinese-funded enterprises, joint management enterprises, and stock-sharing enterprises.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

Figure 25 **Changing shares of main forms of ownership in the output value of China's construction industry, 1980–1993** (%)



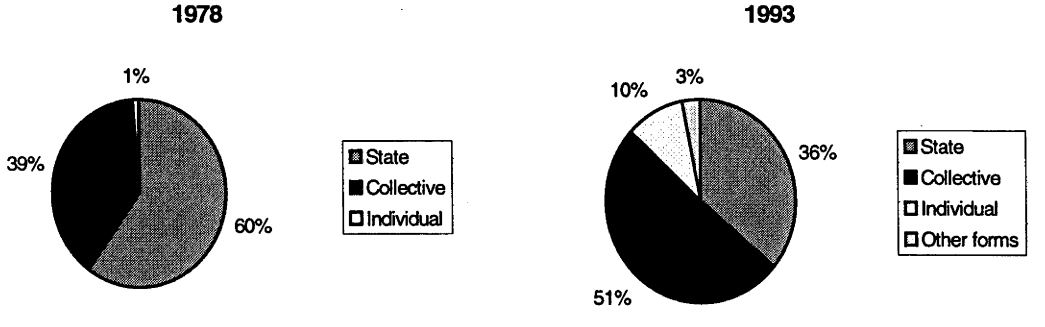
Note: Other forms of ownership refer to miscellaneous rural construction teams and affiliated construction units.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

Figure 26 **Changing shares of main forms of ownership in China's retail sales, 1978–1993** (%)



Note: Retail sales under other forms of ownership refer to those sold by agricultural residents to non-agricultural residents.
Source: *Statistical Yearbook of China 1983–1994*, Beijing.

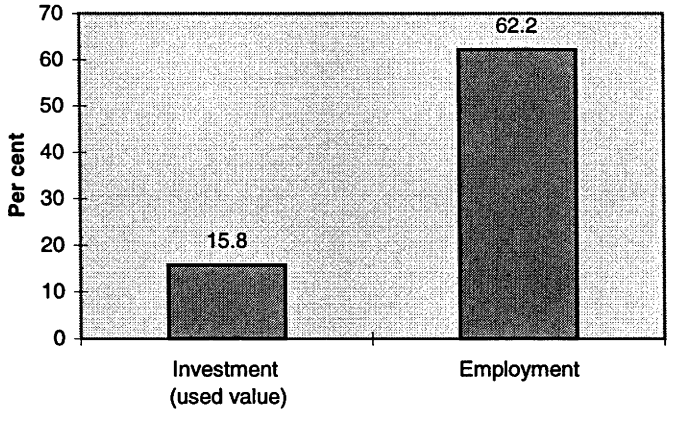
Figure 27 **Changing shares of main forms of ownership in the total employment of China's non-primary industry, 1978–1993** (%)



Note: Other forms of ownership mainly include private ownership, foreign-funded and overseas Chinese-funded enterprises, joint management enterprises, and stock-sharing enterprises.
Source: *Statistical Yearbook of China 1983–1994*, Beijing.

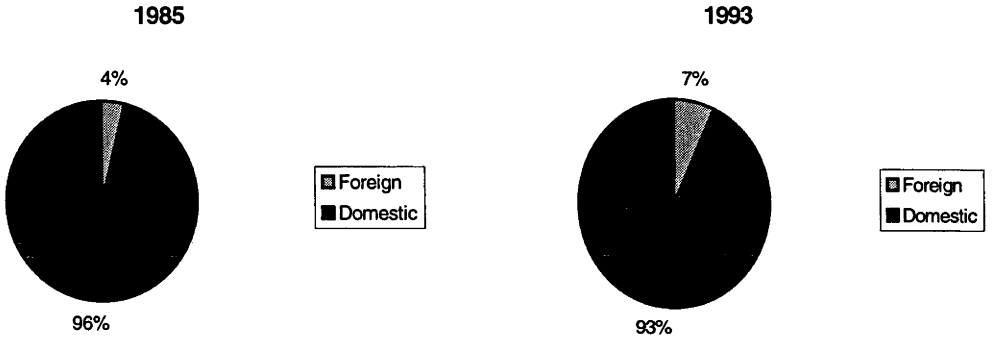
Attention should be given to the rise of a few new forms of ownership along with the increasing international flows of capital and services in the opening process. First, there arose a few enterprises funded directly by foreigners. The foreign direct investment (FDI) took different forms—foreign enterprises, joint ventures, cooperative operations, and cooperative development, and grew very rapidly. From 1983 to 1993, as shown in Figure 28, the average annual growth rate of the actually used value of FDI was 15.8 per cent. From 1985 to 1993, the share of FDI in China's investment in fixed assets rose from 3.6 per cent to 7.3 per cent, as shown in Figure 29. From 1985 to 1993, the average annual growth rate of labourers employed in the FDI sector was 62.2 per cent.

Figure 28 **Rapid growth of the foreign direct investment sector in China, 1983–1993** (average annual growth rate %)



Notes: (1) The growth rate of investment is calculated at current prices; (2) the annual growth rate of employment is calculated on data in the period between 1985 and 1993.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

Figure 29 **Share of foreign direct investment in China's total investment in fixed assets, 1985–1993** (%)



Source: *Statistical Yearbook of China 1983–1994,* Beijing.

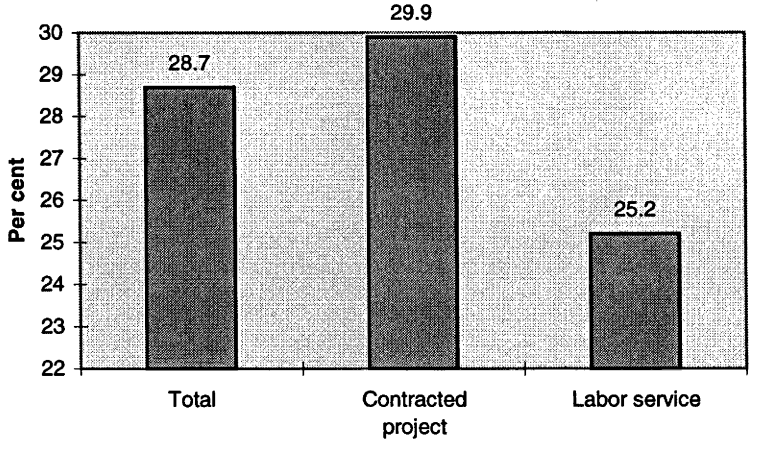
Secondly, there arose enterprises running their business abroad in cooperation with foreigners, which can be considered as a type of transnational companies. These transnational companies either invested in foreign countries or provided services for them, and grew very rapidly (Table 20 and Figure 30). Up to 1991, China had invested in 106 countries, with a total contracted value of US$ 3.2 billions, and the share of Chinese transnational companies in the total contracted value was 44.2 per cent (US$ 1.4 billions). From 1980 to 1993, the average annual growth rate of the fulfilled value of total international services provided by China's transnational companies was 28.7 per cent, that of the fulfilled value of contracted projects provided by these companies was 29.9 per cent, and that of fulfilled value of labour services provided by these companies was 25.2 per cent.

Table 20 **China's international investment up to 1991**

Regions	Number of countries	Number of enterprises	Total contracted value (US$ million)	Chinese investment (US$ million)	Share of Chinese investment in total contracted value (%)
Middle East	10	34	29.9	13.8	46.06
Africa	32	106	92.3	51.8	56.14
Asia excluding Middle East	17	358	441.5	202.7	45.93
West Europe	15	78	86.8	33.1	38.1
East Europe and former Soviet Union	4	105	114.4	49.3	43.07
Oceania	4	70	1229.0	323.4	26.31
North America	2	182	1059.7	655.6	61.87
Latin America	22	75	98.3	64.0	65.08
Total	106	1008	3151.8	1393.7	44.22

Source: Liu Xiangdong (ed.), 1993. *A Guideline of Policies of China's Foreign Trade and Economic Relations*, Economic Management Press, Beijing.

Figure 30 **Growth of the fulfilled value of China's international services, 1979–1993** (average annual growth rate %)



Source: *Statistical Yearbook of China 1983–1994*, Beijing.

Determinants of uneven sectoral growth

China's uneven sectoral growth, both between industry sectors and between forms of ownership, should be examined in the context of re-linking with, or opening up to, market systems both domestically and internationally. The growth model presented in the previous chapter provides a framework to do so since the introduction of domestic and international market orientations into a growth model allows the scrutiny of the uneven sectoral growth within a competitive market context. Consequently, determinants of uneven sectoral growth can be explained in the light of the market forces released in the opening process.

Two explanations

It was shown in the growth model presented in the previous chapter that market orientations increase efficiency in developing countries undergoing a transition to market systems in at least two ways. The first is through demand-led efficiency gains. An increase in market demand and the corresponding outward shift of the demand curve lead an economy to make fuller use of its resources to meet the rising demand, and thereby the output growth of the economy is accelerated. The second is through productivity-related efficiency gains. Market competition reallocates resources from sectors with lower productivity to sectors with higher productivity, and thereby resources are more efficiently utilised and the output growth of the economy is accelerated. China achieved both of these forms of efficiency gains through opening up to market forces, and thereby two explanations can be proposed for uneven sectoral growth in post-1978 China: demand-led uneven sectoral growth and productivity-related uneven sectoral growth.

Demand-led uneven sectoral growth. By demand-led uneven sectoral growth, it is meant that uneven sectoral growth results from uneven changes in market demand and the corresponding uneven resource allocation. As is well acknowledged, demand change differs from quantity demanded, and is determined by non-price determinants such as disposable incomes, consumers' tastes and preferences, and the size of population. To illustrate the uneven change in market demand for goods produced in different industry sectors, commodities are usually classified into two main groups: normal goods and inferior goods. The former refer to goods that consumers tend to buy more of as their income increases. The latter refer to goods that consumers tend to buy less of as their income increases. The concepts of income elasticity of demand and Engel curve can be, therefore, applied to show the uneven change in market demand for different types of commodities produced in different industry sectors, and thereby to explain uneven industry growth in China.

As international markets are involved, a word about their special role in the demand-led uneven sectoral growth is needed. First, in international markets demand changes with opportunity costs. To illustrate this, trade between country A and country B can be taken as an example. Here only two kinds of goods—TV sets and cloth—are examined, with demand for all other goods held constant. As endowments differ in the two countries, they have different production possibility frontiers to produce TV sets and cloth, and they operate at different points on the frontiers. Operating at point *o*, as shown in Figure 31, country A produces and consumes 15 billion metres of cloth and 8 million TV sets each year, and the opportunity cost of 1 TV set is 9000 metres of cloth. Operating at point *o'*, as shown in Figure 32, country B produces and consumes 18 billion metres of cloth and 4 million TV sets each year, and the opportunity cost of 1 TV set is 1000 metres of cloth. In terms of opportunity

cost, therefore, country A has a comparative advantage in cloth production and country B has a comparative advantage in TV production. When the two countries begin to trade with each other, the international market demand for cloth produced in country A will increase, and so does that for TV sets produced in country B. The sector producing cloth in country A and the sector producing TV sets in country B will grow faster than other sectors. When international trade is involved, therefore, the sectors representing a country's rich endowments and producing goods with comparatively low opportunity cost grow faster than those representing a country's poor endowments and producing goods with comparatively high opportunity cost. In China's case, its rich endowment of cheap labour has led, as shall be shown below, to the increase in exports of labour-intensive commodities, and thereby to the rapid development of labour-intensive manufactures, especially in rural China.

Figure 31 **Opportunity cost in country A**

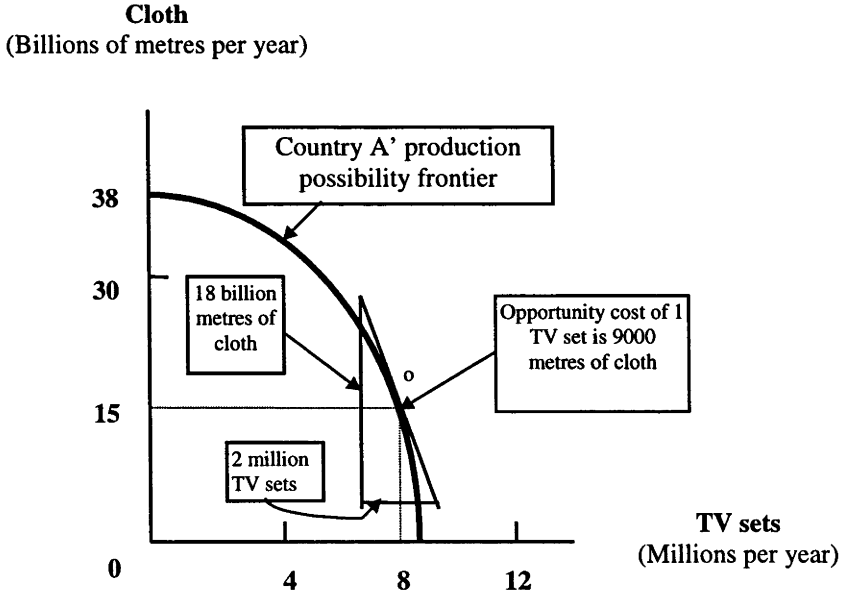
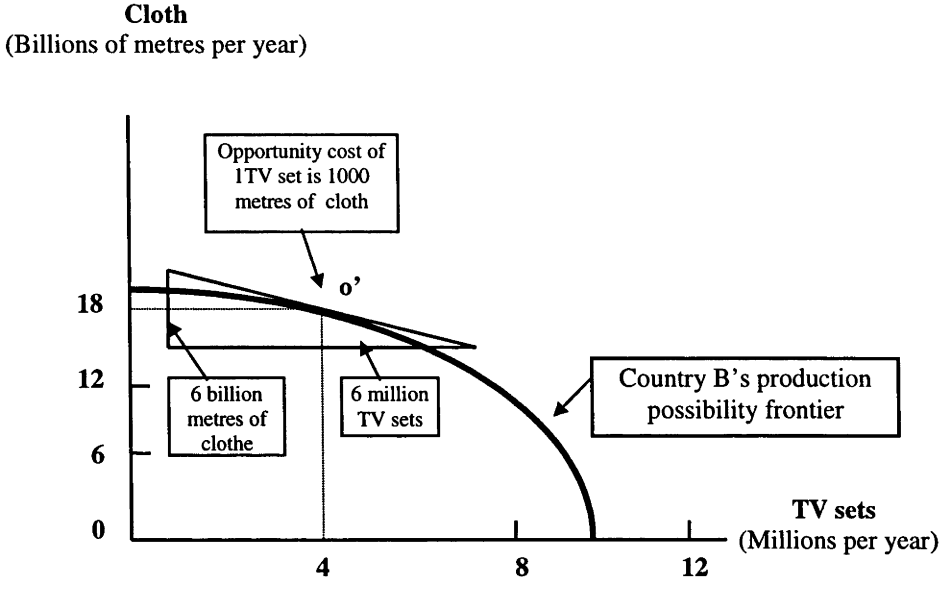


Figure 32 **Opportunity cost in country B**



Secondly, international trade plays a crucial role in the changes in consumers' tastes and preferences. This is especially true of China where foreign consumer goods were not available to ordinary people until 1978. As China opened up, foreign-made consumer goods such as TV sets, washing machines, electric fans, and refrigerators flowed into China, and the demand for them rose dramatically. To meet the rising demand, China adopted an import substitution policy, and the sectors producing these goods and related sectors developed very rapidly. As these sectors grew, moreover, China managed to change from import substitution to exporting some durable consumer goods to foreign countries, and the increasing exports of these goods further stimulated the growth of these sectors.

Productivity-related uneven sectoral growth. By productivity-related uneven sectoral growth, it is meant that uneven sectoral growth results from the functioning

of market orientations in reallocating resources between sectors with different productivity levels. With regard to industry sectors, for instance, the productivity of primary industry differs from that of secondary industry, and that of tertiary industry. With regard to forms of ownership, the productivity of state-owned enterprises differs from that of non-state owned enterprises. The productivity gap implies that resources are more efficiently utilised in sectors with higher productivity than in sectors with lower productivity. In a competitive market context, higher productivity is associated with higher labour income and higher capital income (profit), and resources flow from sectors with lower productivity, lower labour income, and lower capital income to those with higher productivity, higher labour income, and higher capital income. Therefore, the latter sectors grow faster than the former. In fact, productivity-related uneven sectoral growth refers to the uneven sectoral growth introduced by market orientations via productivity gap, and it can occur both between industry sectors and between forms of ownership.[2]

It should be pointed out that labour income and capital income rather than marginal product of labour (MPL) and marginal product of capital (MPC) are used to explain resource reallocation between sectors with different productivity levels. The reason is that the concepts of MPL and MPC ignore the difference in capital composition between industry sectors, and are, therefore, not helpful in explaining resource flows from sectors with lower productivity to those with higher productivity. According to Chow (1993), for instance, the MPC is greater in China's primary industry than in most of China's non-primary industry. In that case, how could the reallocation of capital be in favour of the latter rather than the former? The puzzle lies in the fact that the MPC cannot measure capital income, since a much larger portion

[2] Causes of productivity gaps in transition economies are rather involved, and are beyond the scope of the study.

of the MPC has to be given to the labour force as labour income in more labour-intensive primary industry than in less labour-intensive non-primary industry. A larger MPC in primary industry does not mean, therefore, a larger profit margin. In a competitive market context, capital flows to where it can reap the most capital income and the largest profit margin, just as labourers flow to where they can reap the most labour income.

Capital income or profit is the difference between total revenue and total cost, and profit margins are profits divided by total cost (Miller 1982). Capital income and profit margins can be expressed as in Equations 10 and 11, respectively:

$$P = Tr - Tc \tag{10}$$

$$Pm = \frac{Tr - Tc}{Tc} \tag{11}$$

where P stands for profit or capital income, Pm for profit margins, and Tr for total revenue. Tc stands for total cost which is all the cost (or capital in a broad sense) a capital-holder or a firm-owner spends on the production process, including wages paid to labour[3]. All a capital-holder is concerned about are profit margins and profit maximisation, rather than the MPC! The capital-holder will invest in industries with larger profit margins rather than those with smaller profit margins, no matter how large a MPC the latter have.

We should be aware that demand-led uneven sectoral growth and productivity-related uneven sectoral growth sometimes mingle with each other in the real world.

[3] In this context, the conventional concept of capital as an input different from labour input could be considered as defining capital in a narrow sense, while the concept of capital as equal to total cost

That is, uneven sectoral growth might arise from the functioning of market orientations in the form of differential demand changes only, or from the functioning of market orientations via differential productivity levels only, or from both. It is from the two explanations that a hypothesis is derived, and then tested in the next section.

Hypothesis test

Based upon these two explanations, it is hypothesised that uneven sectoral growth in transition or opening economies is a function of uneven resource allocation introduced by market orientations (either through uneven demand changes or through uneven productivity levels) to increase efficiency, and thereby increased market orientations must be the main determinant of uneven sectoral growth and ensuing structural changes in post-1978 China. There are many approaches to testing the hypothesis, but only three are applied. Moreover, due to data constraints, the tests focus upon uneven growth of two of the most important sectoral-pairs: primary versus non-primary industry, and state-owned versus non-state owned industry enterprises.

Approach 1. Here empirical data are examined to see whether there has occurred uneven output growth both between primary and non-primary industry and between state-owned and non-state owned industry enterprises, whether it has been associated with uneven resource allocation, and whether there has been a productivity gap or uneven changes in market demand between the sectors under comparison so that the 'invisible hand' can function in reallocating resources between them.

Tables 21, 22, and 23, and figures 33, 34, and 35 provide a positive answer to the test. In the sector-pairs under study, the sector with higher productivity witnessed

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could be considered as defining capital in a broad sense. The distinction is very important for

a higher growth rate of both output and inputs whereas the sector with lower productivity witnessed a lower growth rate of both output and inputs. The productivity gap between primary and non-primary industry, for instance, widened over the period and reached a multiple of 4.8 in 1993. Meanwhile, the growth rate of output, labour input, and physical capital input of non-primary industry were 2.1 times, 4 times, and 2.3 times as high as those of primary industry, respectively. The productivity gap between state-owned and non-state owned industry enterprises widened over the period, and reached at a multiple of 2.4 in 1993. Meanwhile, the growth rate of output, labour input, and physical capital input of non-state owned industry enterprises were 1.7 times, 3.5 times, and 1.3 times as high as those of state-owned industry enterprises, respectively. Productivity-related uneven growth occurred, therefore, both between industry sectors and between forms of ownership.

Table 21 **Uneven growth and the productivity gap between primary and non-primary industry in China, 1978–1993**

	Primary industry	Non-primary industry
Growth rate of output (%)	5.20	10.70
Growth rate of labour input (%)	1.30	5.50
Growth rate of capital input (%)	10.10	23.40
Growth rate of productivity (%)	4.60	5.70
Productivity in 1993 (*yuan*)	1957.80	9419.50

Notes: (1) Due to limited availability of data, capital input here refers only to physical capital input which is proxied by total investment in fixed assets in the period between 1985 and 1993. Meanwhile, productivity is estimated upon output per labourer, and the growth rates of productivity were calculated on data in the period between 1985 and 1993. (2) Growth rates refer to average annual growth rates, and the output growth rates are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1980–1994*, Beijing; International Economic Databank, Australian National University.

explaining resource flows between industries.

Table 22 **Uneven growth and the productivity gap between state-owned and non-state owned enterprises in China's industry, 1978–1993**

	State-owned enterprises	Non-state owned enterprises
Growth rate of output (%)	7.80	19.80
Growth rate of labour input (%)	2.60	8.90
Growth rate of capital input (%)	17.50	23.20
Growth rate of productivity (%)	5.90	9.50
Productivity in 1993 (*yuan*)	50521.70	120137.50

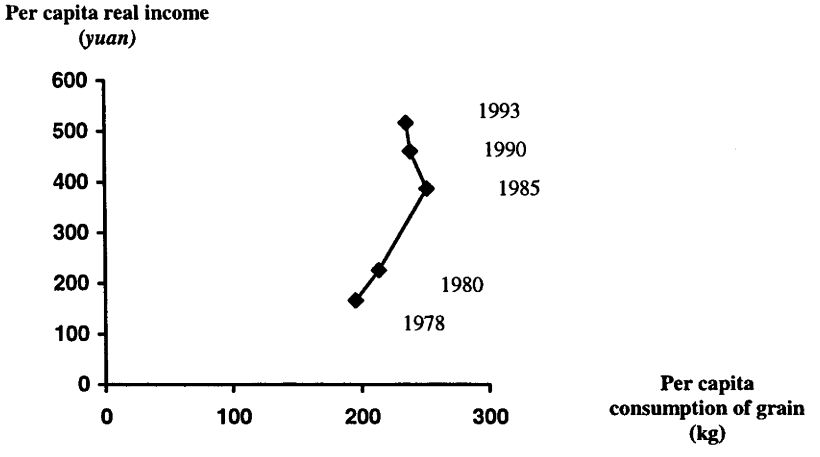
Notes: (1) Due to limited availability of data, capital input here refers only to physical capital input which is proxied by total investment in fixed assets. Moreover, productivity is estimated upon output per labourer, and the growth rates of productivity were calculated on data in the period between 1985 and 1993. (2) Growth rates refer to average annual growth rate, and the growth rates of output are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1980–1994*, Beijing; International Economic Databank, Australian National University.

Table 23 **Coefficients of income elasticity of demand for selected commodities in China, 1978–1992**

Category of commodity	Coefficient of income elasticity of demand
Grain	0.10
Sugar	0.28
Pork	0.65
Sewing machines	1.26
Cameras	1.71
Bicycles	1.90
Washing machines	7.34
Fridge	22.47
Tape recorders	28.48
TV sets	30.38

Note: The income elasticities of demand for services provided by tertiary industry cannot be calculated due to data constraints.
Source: *Statistical Yearbook of China 1984–1994*, Beijing.

Figure 33 **Engel curve for grain in China, 1978–1993**



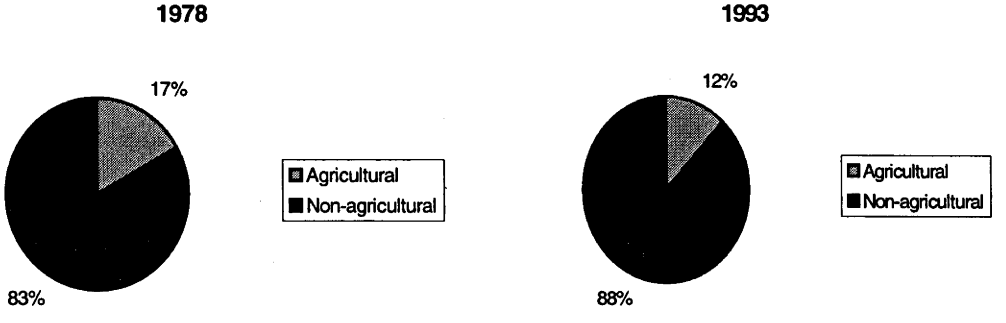
Source: *Statistical Yearbook of China 1984–1994*, Beijing.

As far as uneven change in market demand is concerned, the coefficients of the income elasticity of demand for commodities produced in non-primary industry were much greater than those for commodities produced in primary industry. Grain, which is the main commodity produced in primary industry, underwent a change from a normal good to an inferior good around 1985. The uneven change in market demand has led, as shown in Table 21, to resource flows from primary to non-primary industry, and to the rise of the latter. Demand-related uneven sectoral growth occurred, therefore, between industry sectors.

Meanwhile, there was also increasing evidence for the special role of international trade in demand-led uneven sectoral growth. First, in the international market, there occurred a demand change following a pattern similar to that in China's domestic markets. That is, the demand for commodities produced in non-primary industry increased rapidly in international markets, as shown in Figure 34. From 1978

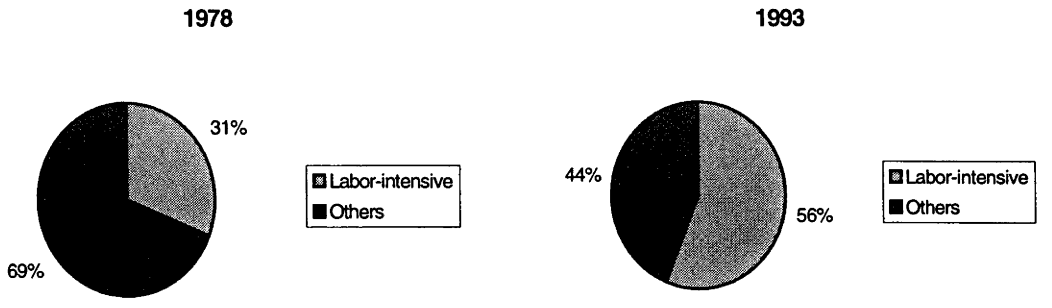
to 1993, the share of non-primary industry goods in the value of total world trade rose from 83 per cent to 88 per cent, whereas that of agricultural goods fell from 17 per cent to 12 per cent. Although China is a 'small country' in global terms, the changing market demand in international markets can still have an important impact upon uneven sectoral growth as China increasingly opened up to international markets. It has led, for instance, to China changing from import-substitution to export-oriented industrialisation, and China's exports of non-primary industry goods increasing rapidly. The share of non-primary industry goods in China's total exports rose from 65 per cent in 1980 to 86 per cent in 1993. By 1995, the total value of China's exports of refrigerators had reached US$ 90 millions, that of washing machines had reached US$ 60 millions, that of TV sets had reached US$ 10 millions, and that of bicycles had reached US$ 10 millions (*China TV News* 2 November 1996). The increased exports of these goods facilitated the rapid growth of non-primary industry in China.

Figure 34 **Decreasing share of agricultural goods in the total value of world exports and imports, 1978-1993** (%)



Source: International Economic Databank, Australian National University, Canberra.

Figure 35 **Increasing share of labour-intensive goods in China's total exports and imports, 1978–1993** (%)



Source: International Economic Databank, Australian National University, Canberra.

Secondly, international trade led China to make full use of its comparative advantage in labour endowments. As shown in Figure 35, the share of labour-intensive goods in China's total exports increased from 31 per cent in 1978 to 56 per cent in 1993. The increasing demand for labour-intensive goods in international markets stimulated the rapid growth of labour-intensive manufacture industry, especially the township and village enterprises (TVEs) in rural China. In 1993, for instance, TVEs contributed to 46 per cent of China's output value of industry, and 45 per cent of China's total exports. Therefore, uneven industry growth and industry structural changes have been, as shown previously, far more impressive in rural China than in other parts of the nation.

Approach 2. Here the effects of market orientations on output growth are compared to see whether they have been greater in faster-growing sectors than in more slowly growing ones. The assumption underlying the test is that given that uneven output growth in transition or opening economies results from the functioning of market

orientations, the effects of market orientations on output growth must be greater in faster-growing sectors than in more slowly growing ones. That is, faster-growing sectors must be more market-driven than more slowly growing ones. The test can be carried out for the two sectoral-pairs under study by running two regressions for each of them on Equations 12 and 13:

$$Ln\Delta Ys_{it} = a + \beta_1 Ln\Delta Dm_{it} + \beta_2 Ln\Delta \mathrm{Im}_{it} + u_{it} \qquad (12)$$

$$Ln\Delta Yf_{it} = a + \beta_1 Ln\Delta Dm_{it} + \beta_2 Ln\Delta \mathrm{Im}_{it} + u_{it} \qquad (13)$$

where Y stands for output, s for more slowly growing sector, f for faster-growing sector. *Dm* and *Im* and their proxies are the same as those in Equation 2 in Chapter 4, and they stand for domestic and international market orientations respectively. i stands for the ith province, and t for the tth time period. The two equations are based upon equation 4 in Chapter 4, but variables representing various inputs are dropped due to unavailability of data on inputs in the individual industry sectors and forms of ownership under study.

As coefficients in the two regressions need to be compared to see whether the difference is statistically significant, observations in the two regressions are pooled together, and dummy variables are introduced to differentiate the two sectors under comparison. The test is, therefore, carried out by estimating the regression as expressed in Equation 14:

$$Ln\Delta Y_{it} = a_1 + a_2 D_{it} + \beta_1 Ln\Delta Dm_{it} + \beta_2 D_{it} Ln\Delta Dm_{it} + \beta_3 Ln\Delta \mathrm{Im}_{it} + \beta_4 D_{it} Ln\Delta \mathrm{Im}_{it} + u_{it} \qquad (14)$$

where D_{it} = 1 for observations in more slowly growing sector and zero for observations in faster-growing sector. Therefore, $Y = \begin{cases} D=1 & Y=Ys \\ D=0 & Y=Yf \end{cases}$. The regression is run on the same set of panel data as that used in Chapter 4 (the dependent variable, of course, varies from one sectoral-pair to another), and *OLS* estimation rather than the Kmenta model is also applied here for the same reason as given previously.

As shown in Table 24, as far as industry sectors are concerned, both the differential intercept and the differential slope coefficients are statistically significant, strongly indicating that the regressions for the two kinds of industry are different. The two regressions (see Equations 12 and 13) can be set down as follows:

$$\textit{Primary industry: } Ln\Delta Ys_{it} = 0.55 + 0.50 Ln\Delta Dm_{it} + 0.1 Ln\Delta \mathrm{Im}_{it}$$

$$\textit{Non-primary industry: } Ln\Delta Yf_{it} = 0.97 + 0.69 Ln\Delta Dm_{it} + 0.25 Ln\Delta \mathrm{Im}_{it}$$

The regression results support the assumption underlying the test: the effects (as indicated by the slope coefficients) of both the domestic and the international market orientations have been greater in the faster-growing non-primary industry than in the more slowly growing primary industry. To put it more concretely, the domestic market orientation has been 1.4 times more effective in non-primary industry than in primary industry, and the international market orientation has been 2.4 times more effective in non-primary industry than in primary industry.

Table 24 **Regression results on Equation 14 for industry sectoral-pair** (dependent variable: *ln* net increase in output)

Variable	Coefficient
Constant	0.97*** (8.8) [6.9]
LnΔDm	0.69*** (14.6) [11.3]
LnΔIm	0.25*** (8.6) [7.4]
D	-0.42*** (-2.7) [-1.8]
DLnΔDm	-0.19*** (-2.8) [-1.8]
DLnΔIm	-0.15*** (-3.6) [-2.6]
F statistic	331.7***
$\bar{R}^2$	0.66
Degrees of freedom	855

Note: Numbers in parentheses under the coefficient estimates are associated t-ratios. Coefficient estimates with *** are significant at the 0.03 significance level. White heteroscedasticity consistent t-statistics are in square brackets[ ].

Table 25 **Regression results on Equation 14 for ownership sectoral-pair** (dependent variable: *ln* net increase in output)

Variable	Coefficient
Constant	-0.24* (-1.6) [-1.0]
LnΔDm	0.75*** (12.4) [6.1]
LnΔIm	0.48*** (12.8) [5.9]
D	1.25*** (6.7) [3.8]
DLnΔDm	-0.11* (-1.5) [-1.1]
DLnΔIm	-0.23*** (-4.7) [-2.0]
F statistic	413.4***
$\bar{R}^2$	0.85
Degrees of freedom	787

Note: Numbers in parentheses under the coefficient estimates are associated t-ratios. Coefficient estimates with *** are significant at the 0.03 significance level. White heteroscedasticity consistent t-statistics are in square brackets[ ].

As shown in Table 25, as far as forms of ownership are concerned, the two regressions (also see Equations 12 and 13) for the two forms of ownership can be set down as follows:

State-owned: $Ln\Delta Ys_{it} = 1.01 + 0.64 Ln\Delta Dm_{it} + 0.25 Ln\Delta \mathrm{Im}_{it}$

Non-state owned: $Ln\Delta Yf_{it} = -0.24 + 0.75 Ln\Delta Dm_{it} + 0.48 Ln\Delta \mathrm{Im}_{it}$

It seems that the effects of both domestic and international market orientations (as indicated by the slope coefficients) have been greater for non-state owned industry enterprises than for state-owned industry enterprises, indicating that non-state owned industry enterprises have been more market-driven both domestically and internationally than state-owned industry enterprises. As the differential slope coefficient for the domestic market orientation is not statistically significant at the 0.05 significance level, however, the two regressions are only partly different. That is, only the effects of the international market orientation has been greater in faster-growing, non-state owned industry enterprises than in more slowly growing state-owned industry enterprises. That is to say, non-state owned industry enterprises have been driven more by the international market orientation than state-owned industry enterprises. To put it more concretely, the international market orientation has been 1.9 times more effective in non-state owned enterprises than in state-owned enterprises. The result of the test points out, therefore, a key weakness of China's state-owned enterprises in a competitive market context in post-1978 China: they have been less successful in the international market orientation than non-state owned enterprises.

Approach 3. Here it is tested whether the rising share of the faster-growing sector in the total output value of the sector-pair under comparison has been positively correlated with domestic and international market orientations. The assumption underlying the test is that if uneven sectoral growth in transition or opening economies results from the functioning of market orientations, the resulting structural change must be positively correlated with increasing market orientations. The test is

carried out for the two sector-pairs under study by running regression either on Equation 15 or on Equation 16:

$$Fp_t = a + \beta_1 \Delta Dm_t + \beta_2 \Delta \mathrm{Im}_t \qquad (15)$$

$$Fp_t = a + \beta_1 Ln\Delta Dm_t + \beta_2 Ln\Delta \mathrm{Im}_t \qquad (16)$$

where *Fp* stands for the share of the faster-growing sector in the total output value of the sector-pair under comparison. ΔDm and ΔIm and their proxies are the same as those in Equation 2 in Chapter 4, and they stand for domestic and international market orientations respectively. *t* stands for the *t*th time period. The difference between the two equations is the functional form of the explanatory variables. The variant functional forms are necessary since the pattern of the effects of domestic and international market orientations on structural change varies from one sectoral pair to another. Time series data at the national level in the period between 1978 and 1993 are used here. As the explanatory variables are already in first-differenced form, the problem of autocorrelation and nonstationarity associated with time series data can be assumed to be not serious, as indicated by the Durbin–Watson statistics in the regression outputs[4]. The regressions are, therefore, run on *OLS*.

Regression is first run on Equation 15 for the rising share of non-primary industry in GDP. As seen from Table 26, the rising share of non-primary industry in GDP has been positively correlated to increased domestic and international market orientations. The coefficients of explanatory variables show what percentage change

[4] All the Durbin–Watson statistics in Tables 26 and 27 exceed the *DL* value at the 0.05 significance level, indicating no serious autocorrelation. All the Durbin–Watson statistics are also above the *CRDW* critical value at 1% significance level, indicating that variables in the regression are cointegrated (though they might be individually nonstationary), so we need not worry about nonstationarity problem. Moreover, as all the adjusted R^2 are much smaller than the Durbin–Watson statistics, the problem of 'spurious regression' does not exist in the regressions (Gujarati 1995).

in the share of non-primary industry in GDP could be introduced by the net increase of 100 million *yuan* in domestic or international trade. Holding other factors constant, the net increase of 100 million *yuan* in China's international trade would lead to a 0.0023 per cent change in the share of non-primary industry in GDP (that is, the share would rise by 0.0023 percentage points), so does the net increase of 100 million *yuan* in China's domestic trade.

Table 26 **Regression results on Equation 15 for non-primary industry** (dependent variable: share of non-primary industry in GDP)

Variable	Coefficient
Constant	67.63*** (89.75)
ΔDm	0.0023** (1.95)
ΔIm	0.0023** (2.07)
F statistic	18.42***
$\bar{R}^2$	0.70
Durbin–Watson statistic	1.60
Degrees of freedom	13

Note: Numbers in parentheses under the coefficient estimates are associated t-ratios. Coefficient estimates with *** are significant at 0.03 significance level, with ** are significant at 0.05 significance level.

Table 27 **Regression results on Equation 16 for non-state owned enterprises** (dependent variable: share of non-state owned enterprises in total industry output value)

Variable	Coefficient
Constant	-10.89 (-1.78)
LnΔDm	2.77** (1.86)
LnΔIm	4.57*** (4.38)
F statistic	42.83***
$\bar{R}^2$	0.85
Durbin–Watson statistic	1.41
Degrees of freedom	13

Note: Numbers in parentheses under the coefficient estimates are associated t-ratios. Coefficient estimates with *** are significant at 0.03 significance level, with ** are significant at 0.05 significance level.

Then, regression is run on Equation 16 for the rising share of non-state owned enterprises in the total output value of industrial enterprises. As Table 27 shows, the rising share is positively correlated to increased domestic and international market orientations. As the regression model is in lin-log form and the regressants are all in ratio form, the β coefficients of explanatory variables show that a 1 per cent change in the net increase in explanatory variables would lead to a 0.01 β per cent change in the share of non-state owned enterprises in the total output value of industry enterprises. Other factors being held constant, the share of non-state owned enterprises in the total output value of industry enterprises would rise by 0.047 percentage points if there occurs a 1 per cent change in the net increase in China's international trade, and it would rise by 0.028 percentage points if there occurs a 1 per cent change in the net

increase in China's domestic trade. Apparently, the rising share of non-state owned enterprises has been influenced by both domestic and international market orientations, but the influence of the international market orientation is stronger than that of the domestic market orientation. The importance of international markets in the test is consistent with what we found in the previous test: non-state owned enterprises have been more driven by the international market orientation than state-owned enterprises.

All the tests conducted so far support the hypothesis. Uneven sectoral growth in transition or opening eocnomies is a function of uneven resource allocation introduced by market orientations to improve efficiency, and increased market orientations have been the main determinant of uneven sectoral growth and the ensuing structural changes in post-1978 China. The finding provides a reasonable explanation for how uneven sectoral growth occurred in the re-linking or opening process, and has very important implications for China.

Significance of uneven sectoral growth

Uneven sectoral growth and the ensuing change in economic structure not only have contributed significantly to China's accelerated economic growth and improvements in people's livelihood, but also have had an increasing impact upon the change in China's social structure, especially the accelerated urbanisation and polarisation. It is, therefore, a key to understanding many phenomena in China's development performance in the re-linking or opening process.

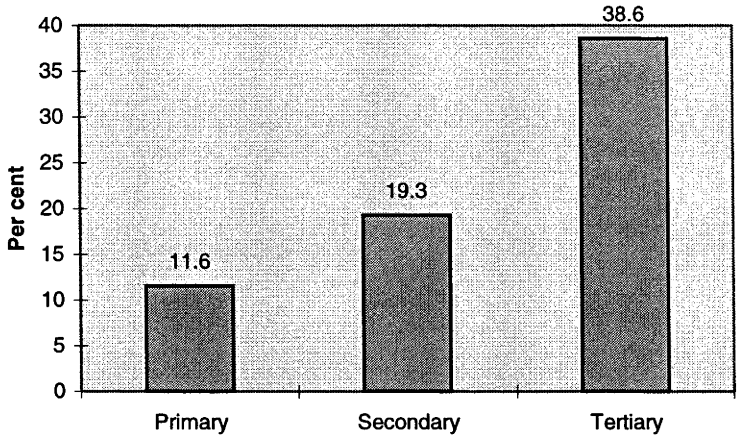
Contribution to economic growth and improvements in people's livelihood

Non-primary industry grew faster than primary industry and non-state owned enterprises grew faster than state-owned enterprises, facts indicating that non-primary industry and non-state owned enterprises have been the 'corner-stone' of the fast-growing Chinese economy. As the faster-growing industry sectors and forms of ownership have been more efficient in resource utilisation than their counterparts, their rise has contributed significantly to China's rapid and sustained economic growth. In other words, China's rapid growth was sustained partly because resources increasingly moved from less efficient primary industry and state-owned enterprises to more efficient non-primary industry and non-state owned enterprises, and the growth of non-primary industry and non-state owned enterprises was accelerated, so was that of the economy as a whole. That is, in a sense, China's growth miracle was rooted in the faster-growing and more efficient non-primary industry and non-state owned enterprises.

In this regard, worthy of notice is the contribution by some new industry sectors and forms of ownership that emerged after 1978. For instance, tourism played an increasingly important role in the growth of tertiary industry. By 1995, tourism had accounted for 11 per cent of the output value of tertiary industry, and 8 per cent of the labourers employed in tertiary industry. As far as forms of ownership are concerned, FDI contributed significantly to China's export-oriented industrialisation. By 1995, FDI had accounted for more than 30 per cent of China's exports. Meanwhile, China's transnational companies also played a distinctive role in expanding China's international markets and promoting economic growth (*China Economic Yearbook 1994*).

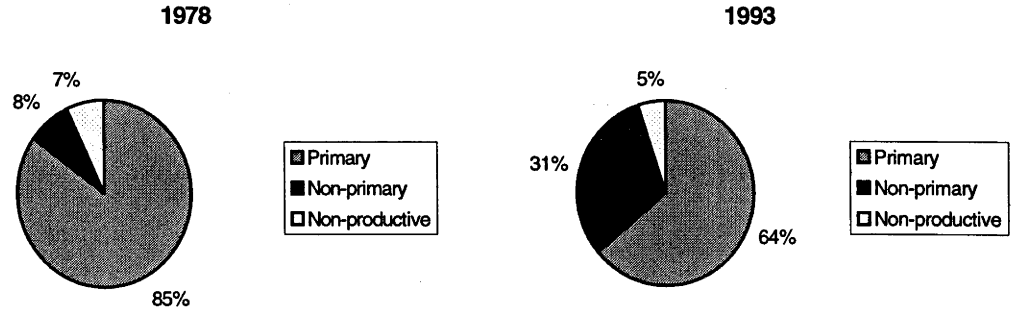
Uneven sectoral growth also contributed significantly to the remarkable improvement in people's livelihood. As far as industry sectors are concerned, it is self-evident that the increase in urban residents' income has been associated with the growth of non-primary industry, so we only illustrate the contribution of rural non-primary industry to the rapid increase in rural residents' income. As shown in Figure 36, from 1978 to 1993 the average annual growth rate of rural residents' per capita real income from secondary industry was 19.3 per cent, that from tertiary industry was 39 per cent, whereas that from primary industry was only 11.6 per cent. As a result, an increasing share of rural residents' income came, as shown in Figure 37, from non-primary industry. From 1978 to 1993, the share of income from non-primary industry in rural residents' total per capita net income increased from 8 per cent to 31 per cent, whereas that from primary industry declined from 85 per cent to 64 per cent, and that from non-productive activities fell from 7 per cent to 5 per cent. Up to 1995, about 34 per cent of rural residents' real income was from non-primary industry. The rapid increase in rural residents' real income narrowed the income and consumption gaps between urban and rural residents. Calculated at 1978 constant prices, the relative urban–rural income gap (the ratio of urban residents' per capita real income to rural residents' per capita real income) decreased from 2.36 to 1.76, and the relative urban–rural consumption gap (the ratio of urban residents' per capita real consumption to rural residents' per capita real consumption) decreased from 2.9 to 2.7.

Figure 36 **Average annual growth rate of rural residents' per capita real income from industry sectors in China, 1978–1993** (%)



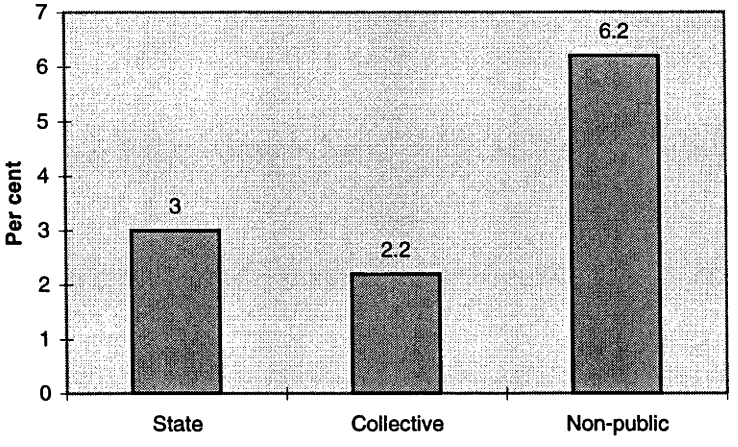
Note: Calculated at 1978 constant prices.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

Figure 37 **Changing composition of rural residents' per capita real income in China, 1978–1993** (%)



Source: *Statistical Yearbook of China 1983–1994,* Beijing.

Figure 38 **Average annual growth rate of real wages of staff and workers in main forms of ownership of China's urban non-primary industry, 1984–1993** (%)



Note: Calculated at 1984 constant prices.
Source: *Statistical Yearbook of China 1983–1994,* Beijing.

As far as forms of ownership are concerned, non-public ownership, especially non-state owned enterprises contributed the most to the rapid improvement in people's livelihood. From 1984 to 1993, for instance, the average annual growth rate of real wages of staff and workers under non-public ownership was 6.2 per cent, whereas that under state ownership was 3 per cent, and that under urban collective ownership was 2.2 per cent (Figure 38). Within non-public ownership, staff and workers in enterprises with FDI usually enjoyed a greater increase in their real wages than others. A survey showed that in 1992, workers in enterprises with FDI earned 1400 *yuan* more than those in state-owned enterprises, and 1903 *yuan* more than those in urban collectively-owned enterprises (*Tianjin Daily* 15 August 1995). Staff and workers sent to work abroad by China's transnational companies also earned much more than those working at home. In China, there goes a saying: 'one worker is sent

abroad, a rich family emerges' (*Economic Daily* 4 May 1994). As shown in the previous chapter, improvements in people's livelihood can, in turn, lead to increased consumption and market demand, improved efficiency in resource allocation and utilisation, and, therefore, accelerated economic growth in labour-surplus developing countries in a transition or opening process.

Impact upon urbanisation and polarisation

Uneven growth between industry sectors and the ensuing industry structural change imply that China's accelerated urbanisation in the post-1978 period was rooted in the rise of non-primary industry, especially the rise of TVEs in rural China. This can be easily seen from the strong correlation between industry structural change and urbanisation in both the pre-and post-1978 periods. In the period between 1960 and 1977, for instance, the share of non-primary industry in GDP fell from 78 per cent to 70 per cent while the share of urban residents in total population fell from 20 per cent to 18 per cent (International Economic Databank, ANU). From 1978 to 1993, by contrast, the share of non-primary industry rose from 69 per cent to 81 per cent while the share of urban residents in total population rose from 19 per cent to 29 per cent. The rise of non-primary industry contributed to urbanisation in at least two ways.

First, the rapid growth of non-primary industry increasingly drew labourers from the countryside to cities. In 1992, for instance, about 40 thousand farmers bought urban residence cards in 40 cities in Henan and Anhui provinces alone. Rural residents working in urban non-primary industry without an urban residence card numbered tens of millions. It was estimated that there were 41 million rural labourers working in urban non-primary industry in the 1990s, and that there will be more than

one hundred million rural labourers moving into cities over the next 20 years (Liu 1996; Huang 1996).

Secondly, the rise of TVEs increasingly transformed the structure of rural China. Labourers increasingly moved from primary industry to TVEs, and the rise of TVEs paved the way for the emergence of new towns and cities in rural areas. It was estimated that by 1994 more than 100 million rural labourers had moved from primary industry to TVEs (Liu 1996), and there had emerged 341 new cities in rural China, more than doubling the number of cities in China in 1980 (229).

On the other hand, uneven growth between forms of ownership and the ensuing change in ownership structure imply that the growing income gap and the increasing polarisation in Chinese society were rooted mainly in the rise of non-public ownership. Income and wealth gaps existed in public forms of ownership well before 1978, especially the gaps between those working in enterprises or communes with good performance and those in enterprises or communes with poor performance. But these gaps were relatively small. The picture of relative equality in income and wealth has been changed dramatically owing to the rise of non-public ownership since 1978, especially owing to the rise of private and individual ownership.

According to the World Bank (1996), the Gini coefficient for per capita real income of China's residents increased from 0.26 in 1977 to 0.38 in 1992. Chen (1997) estimated a Gini coefficient of 0.26 for 1981 and 0.37 for 1995. The Gini coefficient as a summary measure cannot, however, show the true extent of polarisation between the rich and the poor. Although detailed data on the income and wealth of those in non-public forms of ownership are not available, increasing evidence shows that there has arisen a number of 'rich people' who own large businesses, have accumulated an increasing amount of capital, and enjoy an income enormously higher than others.

This is especially true of private enterprises, which distinguish themselves from individual ownership by employing more than 8 labourers. According to official data, per household capital of private enterprises grew 28.5 per cent annually in the period between 1988 and 1993 (as shown in Table 28). Up to 1993, per household capital of private enterprises reached 285840 *yuan* on average, and there were 4070 private enterprises with capital amounting to more than a million *yuan* (*Economic Daily* 24 April 1994). Meanwhile, hundreds and thousands of small business owners (individual ownership in Chinese terms) also accumulated considerable amounts of capital, managers hired by FDI enterprises earned a salary much higher than their counterparts in other enterprises, and famous singers and artists are paid extremely high for their performances.

Table 28 **Increase in wealth of private enterprise owners in China, 1988–1993**

Year	Number of household (10000)	Total capital (100 million *yuan*)	Per household capital (10000 *yuan*)
1988	4.06	32.87	8.09
1989	9.06	84.48	9.33
1990	9.81	95.00	9.68
1991	10.8	123.20	11.41
1992	13.96	221.00	15.82
1993	23.80	680.30	28.58

Source: *Statistical Yearbook of China's Economy 1989–1994,* Beijing.

As a result, Chinese society has been increasingly polarised since 1978. In 1993, 3 per cent of the population owned 30 per cent of all the private savings held by banks. In 1994, about 20000 high income households lived in luxurious villas worth more than one million *yuan*, and about 30000 high income households had their own cars (*Economic Daily* 3 March 1994). Meanwhile, there were 100 million poor people

in rural areas with an annual income of only 200 *yuan*! In cities, an increasing number of state-owned enterprises went bankrupt due to the competition from non-state owned enterprises, and workers in the state-owned enterprises became unemployed. An increasing number of beggars appeared on the streets, and some very poor residents committed suicide. Although growth in income inequality and polarisation is probably inevitable in the beginning of the opening process (as suggested by the dependency/world system paradigm from the perspective of international opening up), it has to be controlled to some extent to ensure increases in people's consumption and sustainability of economic growth on the one hand, and retain social stability and people's support for the government on the other.

6 Active participation and uneven regional development

China's uneven regional development is a very controversial issue, and the debate has focused upon three questions. Have regional disparities been narrowing or widening since 1978? What factors have led to the uneven regional development? What significance does uneven regional development have for China (see, for instance, Martin, King and White 1986; Lyons 1991; Liu Guoguang 1994; Justin Yifu Lin 1995; Li Ling 1996; Jian Chen 1996)? In this chapter, the first question is addressed in section 1, the second is addressed in section 2, and the third is addressed in section 3. In addressing these questions, attention is focused upon how and why uneven regional development occurred in the process of active participation in the global market economy or opening up to market systems. The model present in Chapter 4 is used for hypothesis testing.

Convergence or divergence?

Regional convergence refers to a phenomenon that backward regions grow faster than advanced ones and, therefore, regional disparities decrease over time. Regional divergence refers to the opposite trend. What has been the case in China since 1978? The answer to that question depends, in part, on how regional differences are measured. To avoid one-sidedness, both summary and grouping measures are applied to examine both relative and absolute regional disparities in terms of both output and livelihood indicators of development. The output indicator used is per capita real

GDP. Livelihood indicators include per capita real income and per capita real consumption of all residents, per capita real income and per capita real consumption of urban residents, and per capita real income and per capita real consumption of rural residents.[1]

Regional disparities: summary measures

Summary measures take into account all regional units at a certain level (such as province, city, and county) to illustrate the 'mean' trend of disparities of all the regional units under examination. There are many summary measures of disparities, but the most commonly used are standard deviation (SD), coefficient of variation (CV), and the Gini coefficient. They can be divided into two categories: absolute summary measures and relative summary measures.[2]

[1] All data are deflated, i.e., calculated at 1978 constant prices. Output indicators may differ from livelihood indicators for at least two reasons in China's case: government investment policy and government regional transfer policy. Income of urban residents refers to so-called 'total income' of urban residents in Chinese terms, and is the 'total actual cash income, including regular or fixed income and one-off income. Circulating income such as withdrawal from bank deposits, loans borrowed from relatives or friends, repayment of loans received and various temporary collection of money is excluded'. Income of rural residents refers to so-called 'net income' of rural residents in Chinese terms, and is the 'total income after the deduction of expenses, which can be spent for investments for production and non-production construction and for improvement of daily life, while loan income borrowed from banks or friends and relatives is not included' (*Statistical Yearbook of China 1994*:291). Per capita income of all residents is calculated using the formula: $Ia = \frac{Ir\,\mathrm{Pr} + IrPu}{P}$, where *Ia* stands for average annual per capita income, *Ir* for annual per capita income of rural residents, *Iu* for annual per capita income of urban residents, *P* for population, *Pr* for rural population, and *Pu* for urban population. Both per capita income and per capita consumption are very important livelihood indicators of development in China.

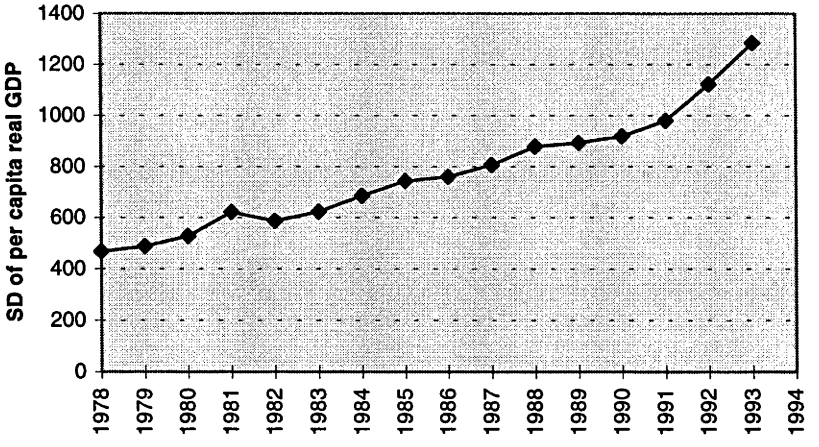
[2] Absolute measures show disparities in absolute values and, therefore, can estimate absolute disparities, eg., in terms of dollars. Relative measures show disparities in one or another ratio form and, therefore, should be used when changes in disparities is the main concern. Absolute disparities and relative disparities may change in different directions; in that case, the latter is usually considered a better measurement.

Absolute summary measures. Absolute summary measures examine the 'mean' trend of disparities of all the regional units in absolute values. The best absolute summary measure is the standard deviation, which is calculated using Equation 17:

$$SD = \sqrt{\frac{\Sigma(X_i - \mu)^2}{N}} \qquad (17)$$

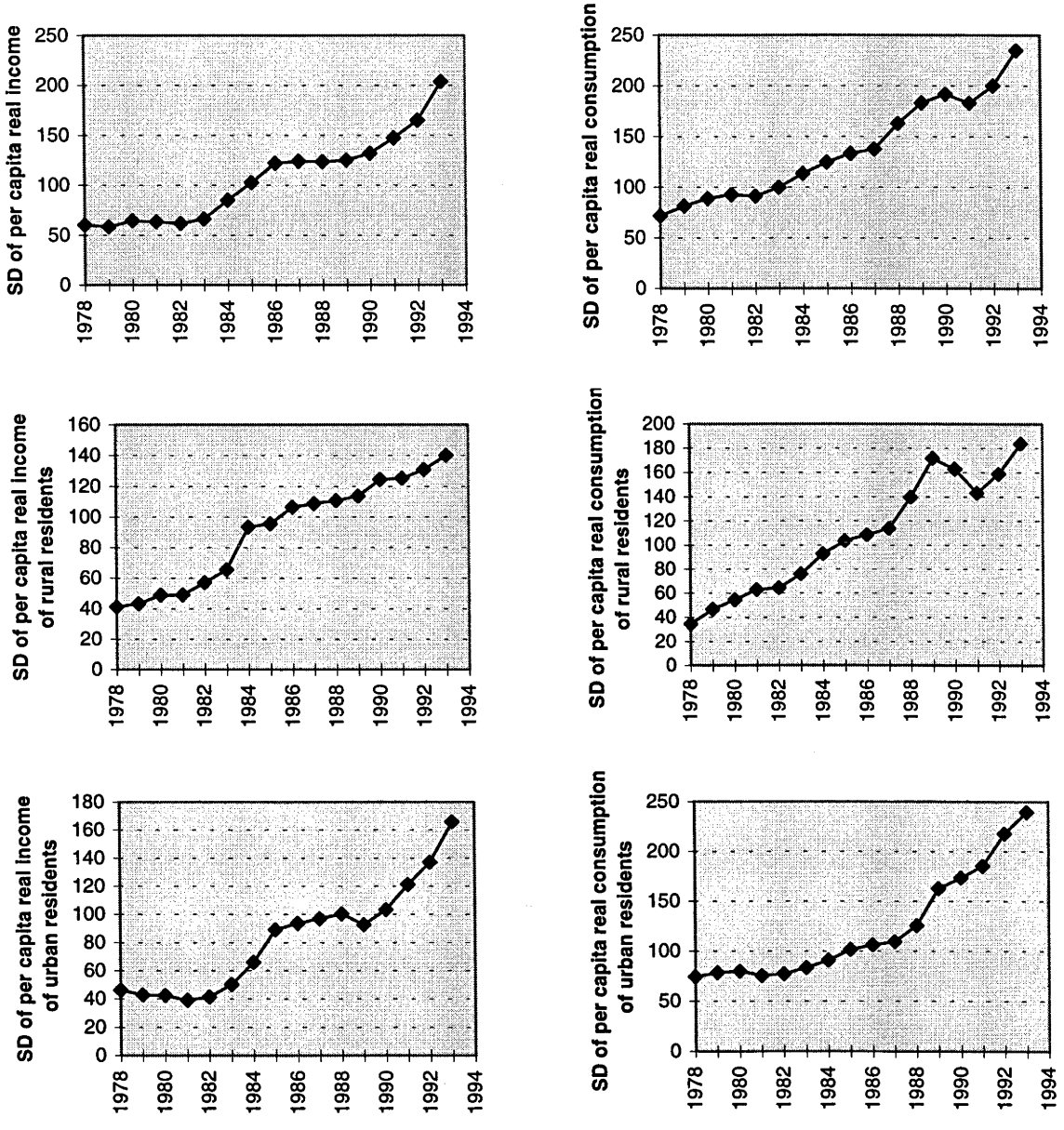
where X stands for the development indicator, i for the region to be measured, where i = 1, 2, 3...N. μ is the arithmetic mean of the development indicator in all the regional units. Figures 1 and 2 show the standard deviation for both output and livelihood indicators of development for China's 30 provinces and metropolitan cities in the period between 1978 and 1993. They all display a rising trend.

Figure 39 **Absolute inter-provincial output disparity in China, 1978–1993** (measured by standard deviation)



Note: Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

Figure 40 **Absolute inter-provincial livelihood disparity in China, 1978–1993** (measured by standard deviation)



Note: Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

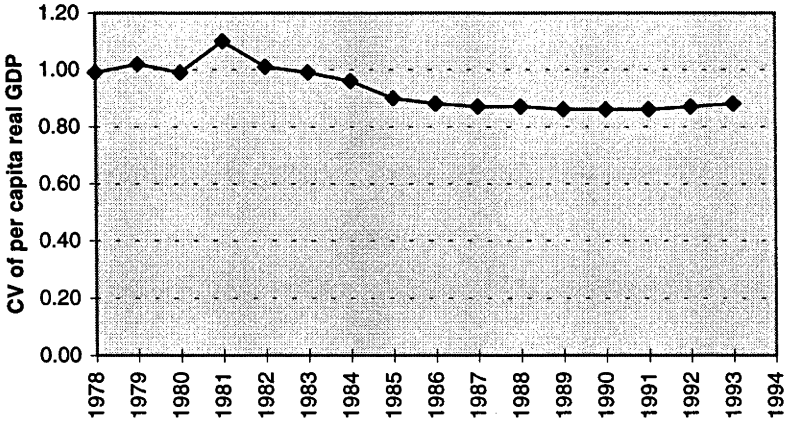
Relative summary measures. Relative summary measures examine the 'mean' trend of disparities of all the regional units in relative terms, usually in ratio forms. Dividing

SD by the arithmetic mean, we obtain a simple relative summary measure called the coefficient of variation, which is defined symbolically as:

$$CV = \sqrt{\frac{\frac{\Sigma(X_i - \mu)^2}{N}}{\mu}} \qquad (18)$$

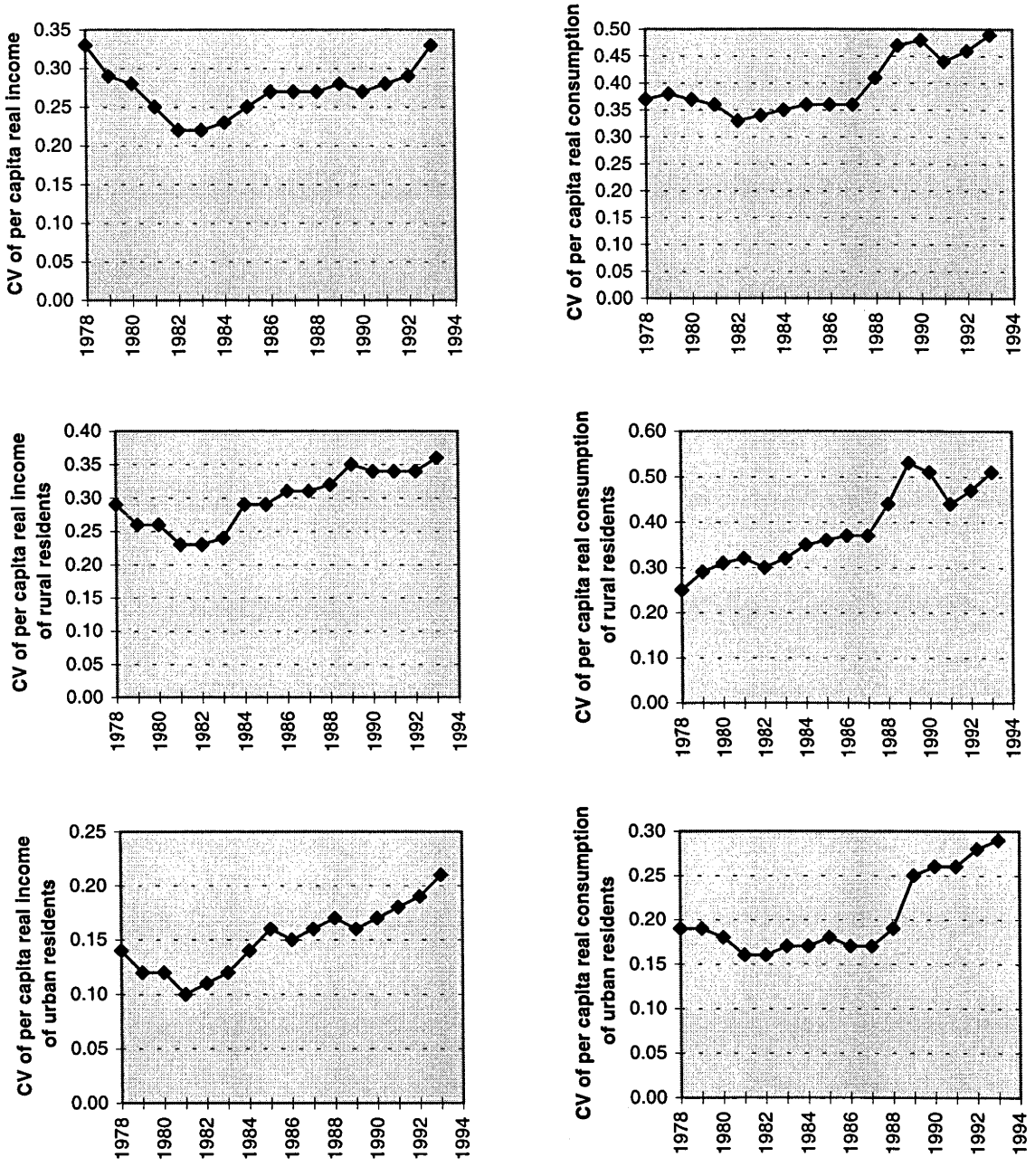
Figures 41 and 42 present the coefficients of variation in both output and livelihood indicators of development for China's 30 provinces and metropolitan cities in the period between 1978 and 1993. It is shown that the coefficients of variation in the output indicator of development fell while the coefficients of variation in all the livelihood indicators of development trended upwards.

Figure 41 **Relative inter-provincial output disparity in China, 1978–1993** (measured by coefficient of variation)



Note: Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

Figure 42 **Relative inter-provincial livelihood disparity in China, 1978–1993** (measured by coefficient of variation)



Note: Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

The opposite directions in inter-provincial output and livelihood disparities in post-1978 China is an important finding which has been so far ignored in most studies on China's uneven regional development. Due to its importance, another relative summary measure, the Gini coefficient, is applied to confirm the finding. There are many approaches to calculating the Gini coefficient, but the most popular is by regression based upon Equation 19:

$$Y_i = AP_i^{\beta} \tag{19}$$

where P stands for the accumulative share of a region in the total number of regions, and Y for the accumulative share of the region's GDP (or other indicators) in the total GDP of all regions. Log-transforming Equation 19, we obtain Equation 20, and the Gini coefficient can be calculated from Equation 21:

$$LnY_i = A + \beta LnP_i \tag{20}$$

$$G = 1 - \frac{2A}{\beta - 1} \tag{21}$$

where A and β are coefficients obtained from Equation 20.[3]

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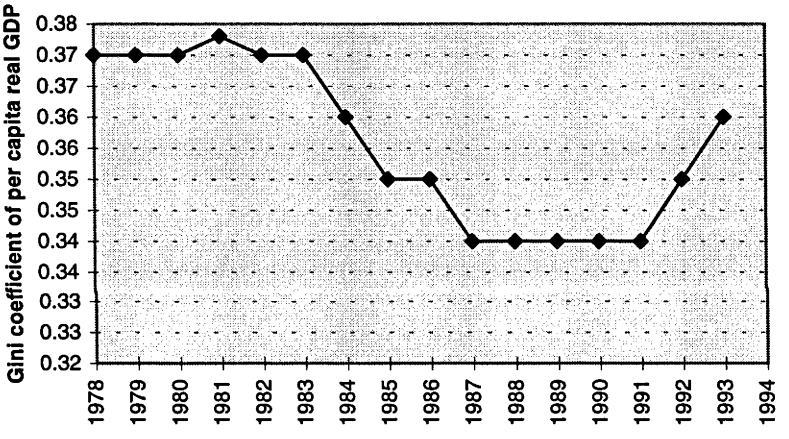
[3] Mathematically, the Gini coefficient can be expressed as $G = \frac{\frac{1}{2} - S}{\frac{1}{2}}$. As $S = \int_0^1 AP_i^{\beta} dP_i = \frac{A}{\beta + 1}$, then $G = 1 - \frac{2A}{\beta + 1}$ (see Chen 1994).

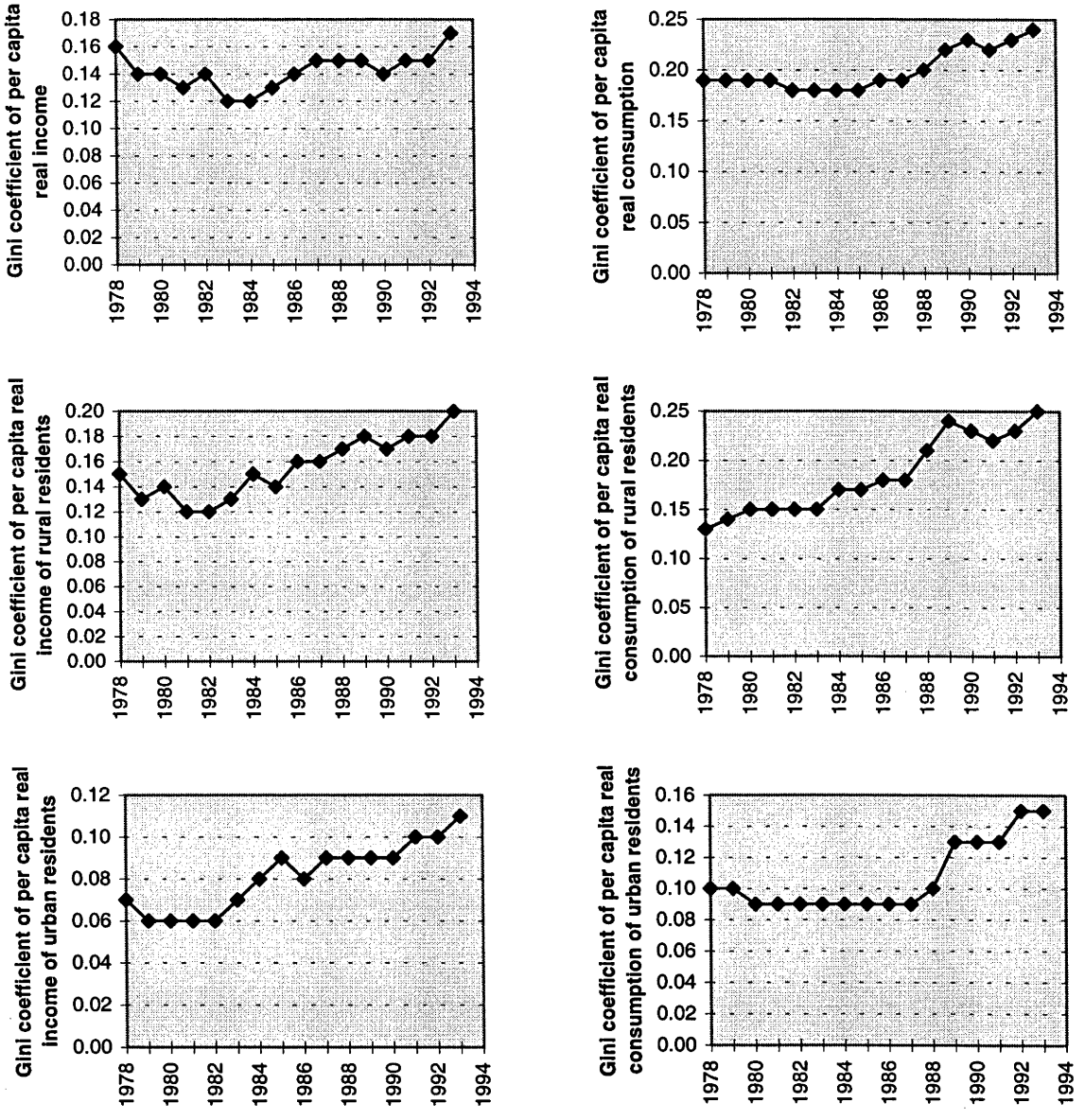
Figures 43 and 44 show the Gini coefficient of both output and livelihood indicators of development for China's 30 provinces and metropolitan cities in the period between 1978 and 1993. The Gini coefficients further confirm the finding reached by calculation of the coefficients of variation.

Figure 43 **Relative inter-provincial output disparity in China, 1978–1993** (measured by Gini coefficient)



Note: Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

Figure 44 **Relative inter-provincial livelihood disparity in China, 1978–1993** (measured by Gini coefficient)



Note: Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

Regional disparities: grouping measures

Grouping measures divide regional units into different groups to examine the disparities between them. As China's uneven regional development in the period was characterised, among other things, by the rise of coastal provinces, especially the southeast coastal Five Dragons (Guangdong, Jiangsu, Zhejiang, Fujian, and Shandong), our grouping measures focus upon the disparities between coastal and interior provinces.[4] Measured here are also both absolute and relative disparities, which are calculated using Equations 22 and 23, respectively:

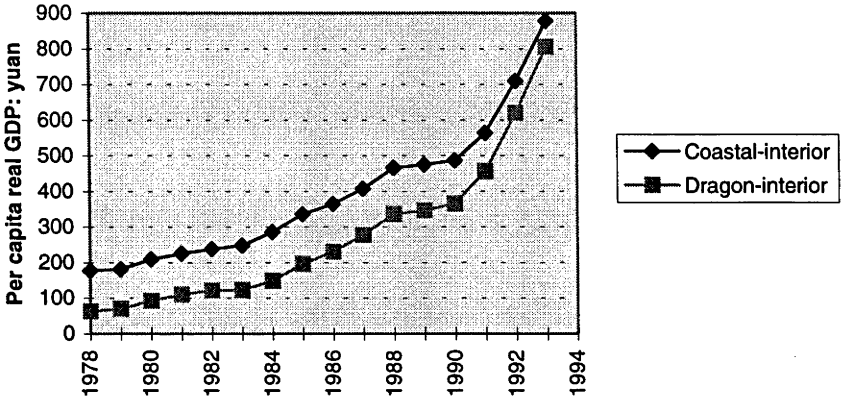
$$Gs = Ya - Yb \qquad (22)$$

$$Gr = Ya / Yb \qquad (23)$$

where Gs stands for absolute disparity, and Gr for relative disparity. Y stands for development indicator, a and b for groups of regional units with a being the richer one (in our case, the coastal provinces or the Five Dragons). As shown in Figures 45, 46, 47, and 48, both the absolute and the relative disparities between coastal and interior provinces have been increasing for both output and livelihood indicators of development.

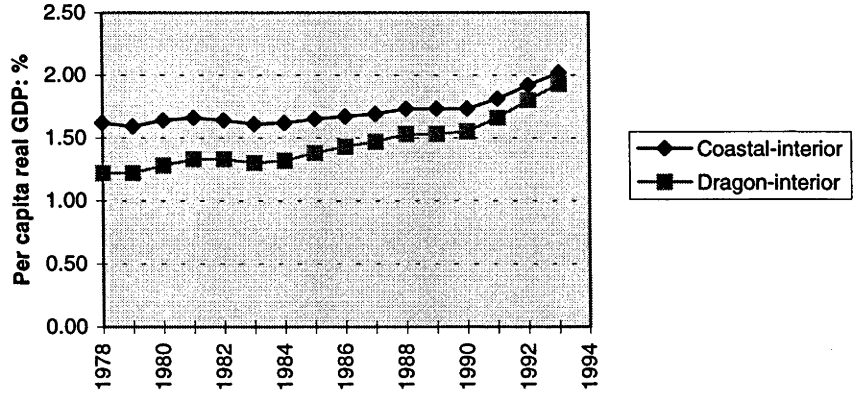
[4] Coastal provinces include Liaoning, Tianjin, Hebei, Shandong, Shanghai, Jiangsu, Zhejing, Guangdong, Hainan (since 1988), Guangxi, Fujian plus Beijing. They are also called Eastern provinces in China. Interior provinces can be divided into two groups: Central and Western provinces. Central provinces include Heilongjiang, Jilin, Neimenggu, Shanxi, Henan, Hubei, Hunan, Anhui, Jiangxi; Western provinces include Xinjiang, Gansu, Qinghai, Ningxia, Shanxi, Sichuan, Yunnan, Guizhou, Xizang.

Figure 45 **Absolute output disparity between coastal and interior provinces in China, 1978–1993** (*yuan*)



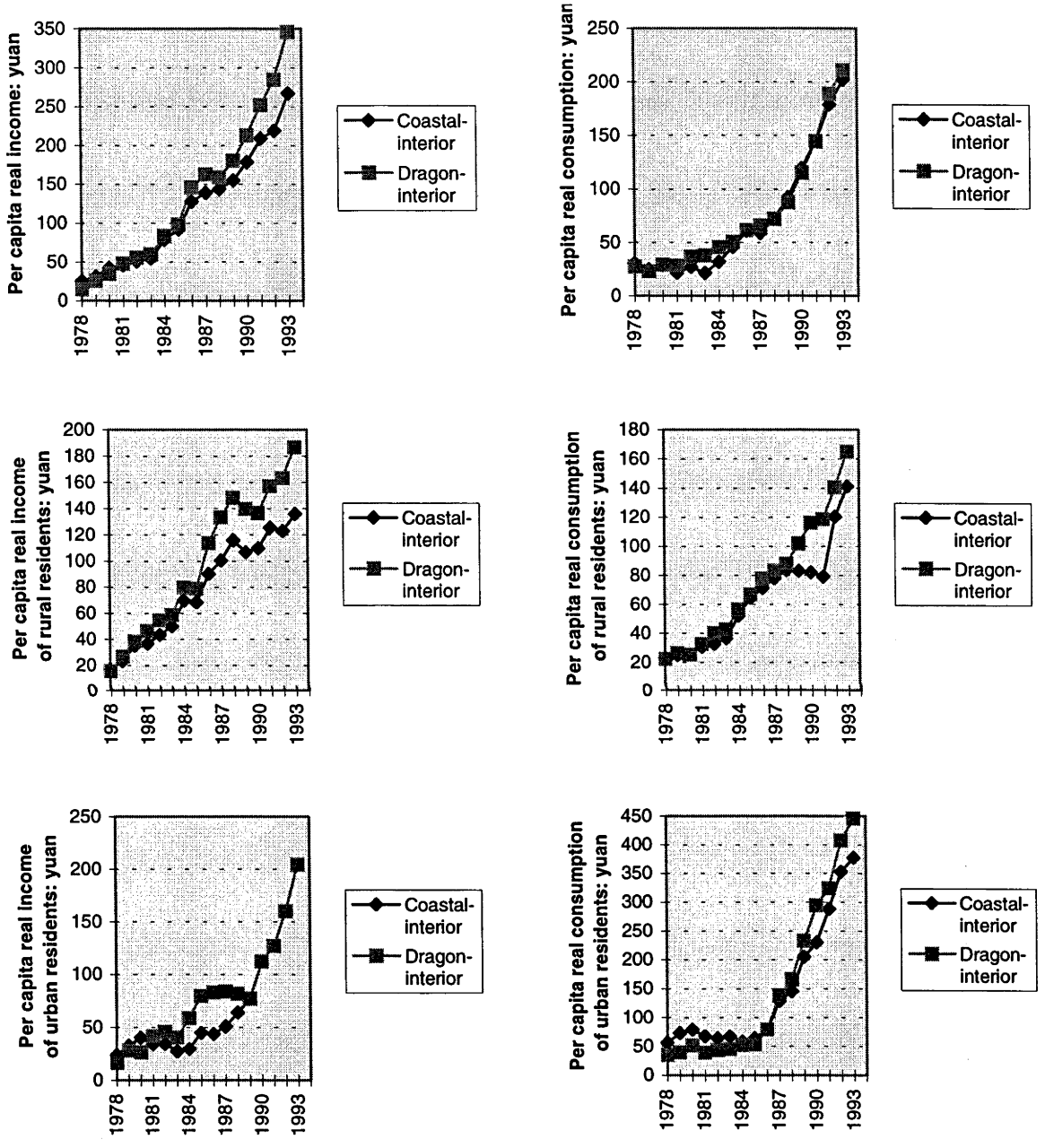
Notes: (1)Absolute disparity is calculated by per capita GDP of coastal provinces minus that of interior provinces; (2)Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

Figure 46 **Relative output disparity between coastal and interior provinces in China, 1978–1993** (%)



Notes: (1)Relative disparity is calculated by per capita GDP of coastal provinces divided by that of interior provinces; (2)Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

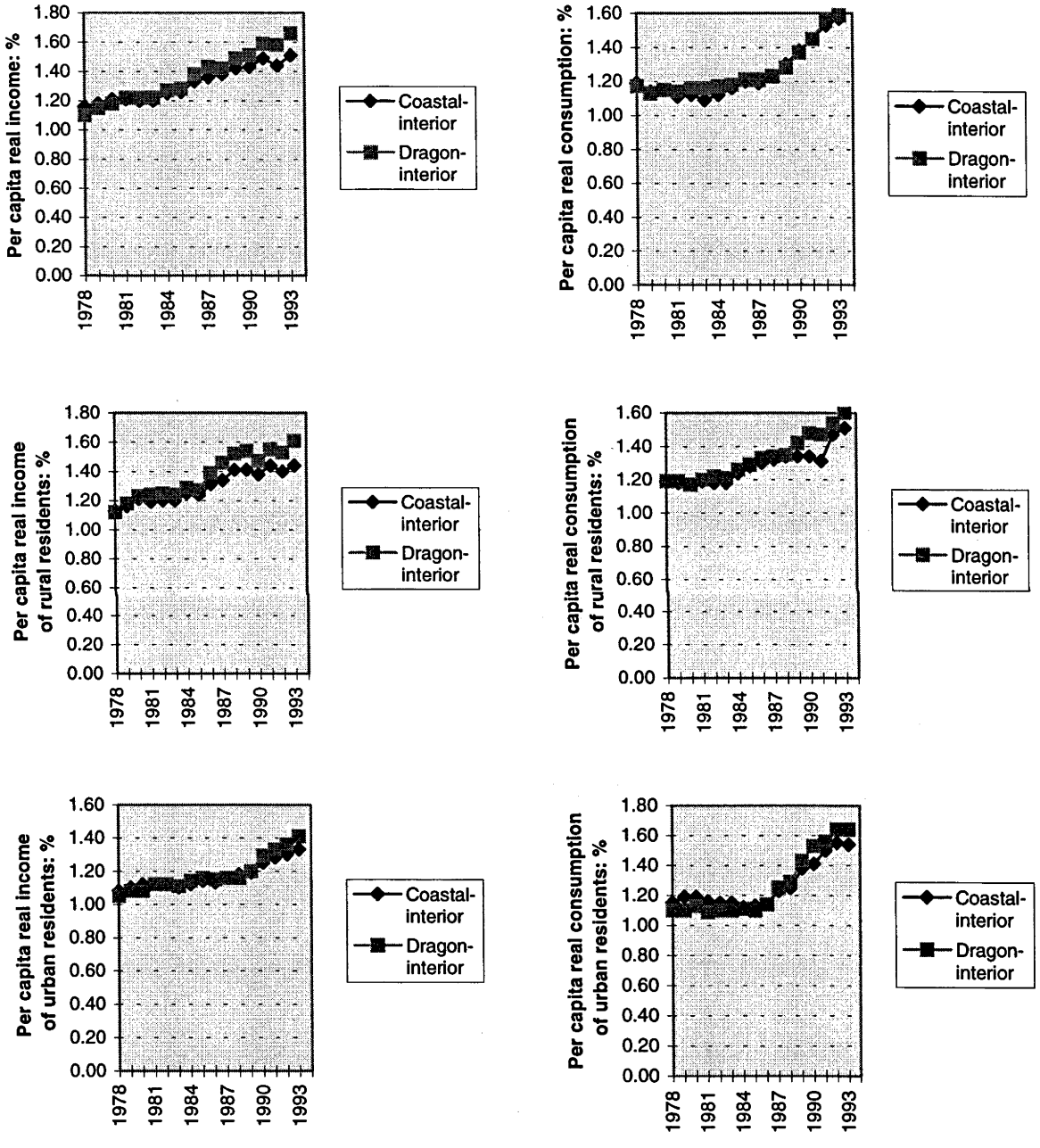
Figure 47 **Absolute livelihood disparity between coastal and interior provinces in China, 1978–1993** (*yuan*)



Notes: (1) Absolute disparity is calculated by per capita GDP of coastal provinces minus that of interior provinces; (2)Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.

Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

Figure 48 **Relative livelihood disparity between coastal and interior provinces in China, 1978–1993** (%)



Notes: (1) Relative disparity is calculated by per capita GDP of coastal provinces divided by that of interior provinces; (2)Tibet and Hainan provinces are excluded from the calculation for the period between 1978 and 1985 due to unavailability of data. All data are calculated at 1978 constant prices.

Source: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China 1983–1995, China.

The above summary and grouping measures reveal that both inter-provincial and coastal-interior disparities in both output and livelihood indicators are widening in absolute terms. Absolute disparities are, however, not very appropriate for comparison between different data sets in different periods, i.e., changes in disparities over time. Attention should be, therefore, given to relative disparities. Three significant phenomena can be identified in the change in relative regional disparities:

- a narrowing of inter-provincial output disparity;
- a widening of inter-provincial livelihood disparity;
- a widening of coastal-interior disparity in both output and livelihood indicators of development.

Therefore, regional convergence and regional divergence have co-existed in China since 1978, and sources of each of the tendencies need to be addressed in the light of China's opening up to market systems.

Sources of uneven regional development

Both the tendency toward convergence and that toward divergence are, as mentioned previously, due to the fact that some regions developed faster than others. The former implies, however, that the faster-developing are relatively backward regions while the latter implies that the faster-developing are relatively advanced ones. No matter which kind of regions develops faster, a fundamental question remains: what leads some regions to develop faster than others? In other words, what are the sources of uneven regional development?

An answer to the puzzle

The answer to the question is country-specific and period-specific. Given that China has been re-linking with, or opening up to, market systems since 1978, three main sources—backwardness advantage, location advantage, and the functioning of market orientations—are identified to explain China's uneven regional development, and an effort is made to illustrate the most important.[5]

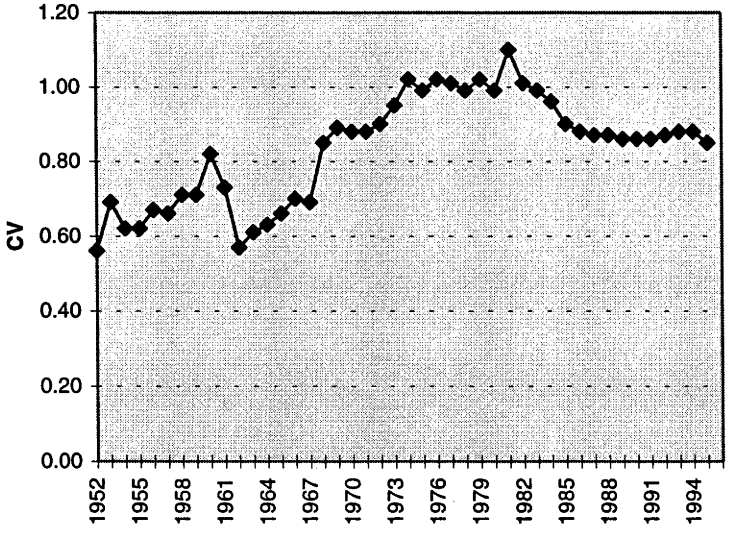
Backwardness advantage. The narrowing inter-provincial output disparity indicates a tendency toward convergence: backward provinces grew faster than advanced ones. Convergence is usually attributed to backwardness advantage in the growth literature. Many explanations for backwardness advantage have been posed, and one of the most convincing is the so-called 'technology catch-up' argument (see, for instance, Olson 1982; Baumol 1986). That is, backward regions have an advantage in imitating and absorbing technology invented in advanced regions. It is less costly to imitate and absorb a technology than to invent it, so backward regions tend to catch up with advanced ones.

No matter what are the explanations, however, backwardness advantage is primarily influenced by macroeconomic environment (see, for instance, Abramovitz 1986). Market systems facilitate 'technology catch-up' much better than self-sufficient and command systems, for markets promote the free flow of technology-

[5] There are, of course, other factors that have influenced uneven regional development in post-1978 China. For instance, population size and factor endowments might be such factors. They are, however, not characteristic of the period and, therefore, are not the main concerns of the study. As for population size, China has been pursuing tough population control policies since the early 1970s, so the difference in population growth between regions is not substantial. From 1978 to 1993, for instance, growth rates of population in China's 30 provinces and metropolitan cities were around 1 or 2 per cent, and have no significant correlation with growth rates of GDP in the regions (not significant at 0.05 significance level). Here attention is focused on the most important sources of uneven regional development in the period. Besides, policy preference is an important factor that has influenced the functioning of market orientations, and is analysed in Chapter 7.

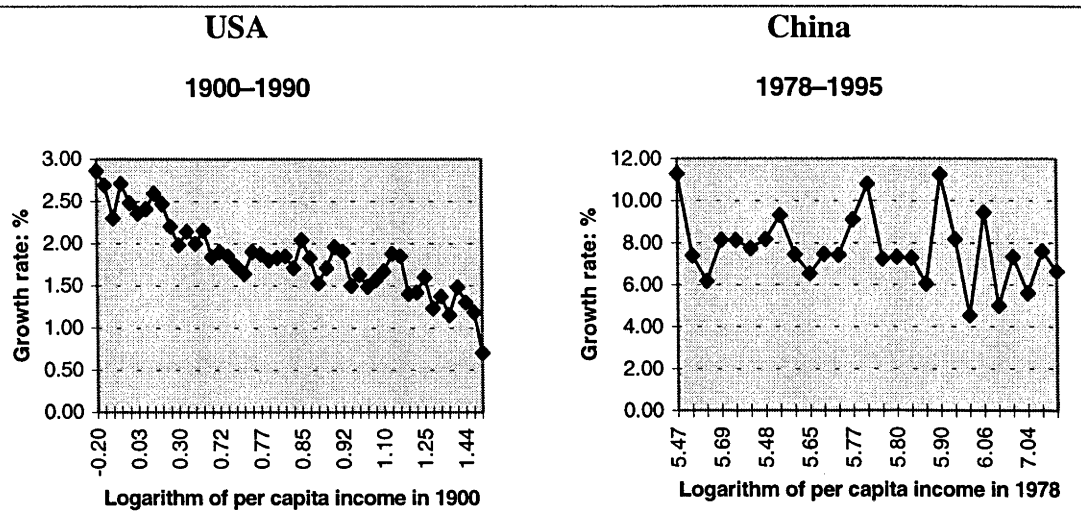
intensive goods between advanced and backward regions. In consideration of this, it should not come as a surprise when it is found that inter-provincial convergence, as measured by output disparity, did not occur in pre-1978 China (Figure 49), and that inter-provincial convergence in post-1978 China was still quite weak as compared with that in the USA—the most marketised economy in the world (as suggested in Figure 50). Meanwhile, as shown by Barro and Sala-i-Martin (1995), the experiences of other marketised economies such as Japan and European countries also showed a much stronger convergence tendency than China. The weak convergence tendency in China is consistent with the fact that China is still in a process of transition to a market system. The realisation of the potential backwardness advantage in post-1978 China heavily depends, therefore, on the macroeconomic environment of re-linking with, or opening up to, market systems.

Figure 49 **Inter-provincial convergence in post-1978 China as compared with inter-provincial divergence in pre-1978 China** (measured by relative summary disparity: coefficient of variation)



Note: Inter-provincial disparity is measured here by per capita national income (before 1978) and per capita GDP (after 1978) in real terms.
Sources: *Statistical Yearbook of China 1983–1996*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

Figure 50 **Inter-provincial convergence in China as compared with inter-state convergence in the USA** (as measured by the negative correlation between income growth rate and initial income level)



Note: The vertical axis shows the average annual growth rate of per capita income in the period under study, and the horizontal axis shows the log of per capita income in the initial year of the period. The correlation coefficient between the two variables for the USA is -0.91, and that for China is -0.21.
Sources: Barro and Sala-i-Martin 1995; *Statistical Yearbook of China 1983–1996*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

Location advantage. The widening coastal-interior disparity indicates a tendency toward divergence: advanced coastal regions developed faster than backward interior ones. The location advantage enjoyed by coastal regions is partly responsible for this. After China opened up in 1978, its increasing economic contacts with foreign countries had to be carried out through coastal regions. Particularly as the center of gravity of the world economy shifted from the Atlantic to the Asia Pacific, coastal regions have been increasing in importance in China's re-linking development strategy. This is reinforced by the close ties of coastal regions with overseas Chinese communities, especially with Hong Kong, Macau, and Taiwan (see, for instance, Sung 1991). The location advantage allowed coastal regions greater access to world markets than their interior counterparts, and has no doubt contributed to China's

uneven regional development, especially to the rise of the southeast coastal Five Dragons, and thereby to the widening coastal-interior disparity in the post-1978 period.

Once again, however, the location advantage is primarily influenced by macroeconomic environment. In the pre-1978 period, for instance, the coastal location advantage was downplayed, and priority was given to interior regions, especially the 'Third Front'.[6] That was consistent with the macroeconomic environment over that period: socialist regional equalitarianism and preparation for anti-imperialism wars (see, for instance, Liu Guoguang 1994). In the post-1978 period, the coastal location advantage was acknowledged only gradually along with the deepening of market-oriented reforms and China's opening up to market systems both domestically and internationally. Any changes in the macroeconomic environment can, therefore, have an impact upon the effect or even the direction of the location advantage. In other words, the realisation of the potential location advantage depends, as in the case of the backwardness advantage, on the macroeconomic environment of re-linking with, or opening up to, market systems.

Functioning of market orientations. The functioning of market orientations indicates the changing macroenvironment of re-linking with, or opening up to, market systems and, therefore, can have an extremely important impact on regional development in post-1978 China. In labour-surplus developing countries undergoing a transition or opening process like China, the functioning of market orientations contributes to uneven regional development in many ways, but three are the most important.

[6] The 'Third Front' includes ten interior provinces: Sichuan, Guizhou, Shanxi (in western China), Gansu, Qinghai, Ningxia, Quangxi, Hubei, Hunan, Shanxi (in central China).

The first is the increase in market demand. As shown in previous chapters, increasing market demand can lead to improved efficiency in resource utilisation and, therefore, have an important impact upon economic growth in labour-surplus developing countries and transition economies where the long-run supply curve is not vertical. In a sense, therefore, regional growth heavily depends upon whether a region can increase market demand for the commodities it produces through increased market orientations.[7]

The second is uneven sectoral growth and the ensuing structural change introduced by market orientations through uneven resource allocation. As a labour-surplus developing country, China has enormous rural unemployment or underemployment, and thereby a significant productivity gap between primary and non-primary industry. As a transition or opening economy, China has a huge inefficient state-owned sector, and thereby an increasing productivity gap between state-owned and non-state owned enterprises. In other words, resources are more efficiently utilised in non-primary industry and non-state owned enterprises than in primary industry and state-owned enterprises. The introduction of market mechanisms in post-1978 China brought about increasingly free flows of resources between sectors. Market orientations have led, as shown in Chapter 5, to resource flows from less efficient primary industry and state-owned enterprises to more efficient non-primary industry and non-state owned enterprises.[8] The increase in efficiency in resource allocation and utilisation through market orientations has contributed significantly to China's growth 'miracle', and must have a great impact on regional

[7] It should be pointed out that owing to commodity flows between regions, increases in market demand in one region might lead to output growth in other regions. Nevertheless, given that a large portion of regional demand is still met by regional supply in China, increasing market demand can improve efficiency in resource utilisation, and accelerate economic growth in the region concerned.

economic growth. To an extent, the speed with which a regional economy grows depends heavily on the extent to which market orientations lead to uneven sectoral growth and the ensuing structural change through uneven resource allocation in the regional economy concerned.

The third is increasing regional autonomy and the corresponding relaxation of government intervention in regional income redistribution. Planned economic systems entail an extremely centralised state power, and the central government has tight control over individual regions in relation not only to regional development policymaking but also to regional income redistribution. In the pre-1978 period, the centralisation depressed incentives of individual regions although it did lead to extreme equalisation in regional living standards through regional income redistribution programs. Market orientations triggered increasing competition between regions, and thereby led to increasing regional autonomy and the corresponding relaxation of government intervention in regional income redistribution. Although the increasing regional autonomy and the relaxation of government intervention in regional income redistribution facilitated the economic growth of some regions, they inevitably hurt the poor regions which enjoyed subsidies from the central government and, therefore, led to widening regional disparities, especially livelihood disparities.

Hypothesis test

Based upon the above analysis, a hypothesis can be posed. Given that the realization of the backwardness advantage and the location advantage depends heavily on the macroeconomic environment of re-linking with, or opening up to, market systems, the

[8] Resource flows between economic sectors actually underlie resource flows between geographical regions in the sense that resources flow to regions where efficient non-primary industry and efficient non-state owned enterprises grow the fastest, as shown below.

functioning of market orientations must be the most important source of uneven regional development in post-1978 China. There are many approaches to testing the hypothesis, but we apply only three that can shed light on the three most significant phenomena in China's uneven regional development in the period illustrated above: inter-provincial output convergence, inter-provincial livelihood divergence, and coastal-interior divergence in both output and livelihood indicators of development.

Approach 1. Here an econometric model is developed to see how increased domestic and international market orientations have influenced the play of both backwardness advantage and location advantage and, therefore, uneven regional output growth. The model is based upon the growth framework illustrated in Chapter 4, and can be expressed mathematically as

$$Ln\Delta Y_{it} = a + \beta_1 LnYo_{it} + \beta_2 De_{it} + \beta_4 Ln\Delta Dm_{it} + \beta_5 Ln\Delta \mathrm{Im}_{it} + u_{it} \qquad (24)$$

where a stands for LnA, and Y for per capita GDP. *Yo* stands for per capita GDP in the initial year of the period, designed to capture the effect of backwardness advantage. *De* is a dummy variable set equal to one for coastal provinces, designed to capture the effect of location advantage enjoyed by coastal provinces. *Dm* and *Im* and their proxies are the same as those in Equation 2 in Chapter 4, designed to capture the effect of domestic and international market orientations respectively. The explanatory variables are introduced successively to see how the inclusion of *Dm* and *Im* influences the value of the coefficient of *Yo* and that of *De*. If the realisation of both the backwardness advantage and the location advantage is influenced by market orientations, it is expected that after the inclusion of *Dm* and

Im the value of the coefficient of *Yo* and that of *De* shall decrease or even become statistically equal to zero (Barro and Sala-i-Martin 1992). The regressions are run on the same set of panel data as that used in Chapter 4, and *OLS* estimation rather than the Kmenta model is also applied here for the same reason as explained previously.

Table 29 **Regression results on Equation 24** (dependent variable: *Ln* net increase in GDP)

Variable	Regression with backwardness variable and location dummy	Regression with backwardness variable, location dummy and market variables
Constant	7.32*** (10.5) [9.39]	3.15*** (8.79) [7.55]
LnYo	-0.76*** (-6.31) [-5.5]	-0.31*** (-5.61) [-4.89]
De	1.14*** (7.99) [7.64]	-0.01 (-0.21) [-0.23]
LnΔDm		0.68*** (17.03) [11.63]
LnΔIm		0.22*** (9.66) [6.61]
F statistic	36.78***	577.96***
$\bar{R}^2$	0.13	0.84
Degrees of freedom	475	420

Note: Numbers in parentheses under the coefficient estimates are associated t-ratios. Coefficient estimates with *** are significant at the 0.05 significance level. White heteroscedasticity consistent t-statistics are in square brackets[ ].

As shown in column 2 in Table 29, the coefficient of *Yo* is negative and statistically significant, indicating that backwardness advantage contributed to uneven regional development. It shows that on average a province with an initial per capita GDP 1 per cent lower would have a growth rate of GDP increase 0.76 per cent higher. The coefficient of *De* is positive and statistically significant, indicating that location advantage contributed to uneven regional development. It shows that on average the growth rate of GDP increase in coastal provinces was 213 per cent faster than that in interior provinces.[9] As shown in column 3, however, the value of the coefficient of *Yo* decreases by more than a half, and that of *De* becomes statistically equal to zero after market variables *Dm* and *Im* are introduced. That is to say, if market orientations are controlled for, backwardness advantage and location advantage cannot develop to their potential or may even disappear. In other words, it is market orientations that have been mainly responsible for the fast growth of backward regions, and that has led coastal regions to grow faster than interior ones. The test suggests, therefore, that market orientations have been, therefore, the main determinant of uneven regional growth, and lay behind both the inter-provincial output convergence and the coastal-interior output divergence in post-1978 China.

Approach 2. Here under examination is the correlation between uneven sectoral growth and uneven regional growth to see if the efficient sectors grew fastest in the fastest-growing regions. The assumption underlying the test is that given market orientations lead to the rise of efficient sectors in transition or opening economies, the efficient sectors must grow fastest in the fastest-growing regions if the functioning of market orientations is an important determinant of uneven regional growth. Due to the

[9] The antilog of 1.14 is 3.13. 3.13 sabstract 1 is equal 2.13, ie. 213% (Halvorsen and Ralmquist 1980).

reason explained previously, the test is to see whether efficient non-primary industry and efficient non-state owned enterprises have been the leading sectors in the fastest-growing backward or coastal regions in post-1978 China.

Table 30 **Uneven growth and initial national income level of China's provinces, 1952–1978**

Order	Region	Per capita national Income in 1952 (*yuan*)	Region	Average annual growth rate of per capita national income, 1952–1978 (%)
1	Shanghai	584.15	Beijing	7.30
2	Tianjin	261.96	Shanghai	6.00
3	Beijing	250.80	Tianjin	5.30
4	Heilongjiang	207.92	Liaoning	5.00
5	Liaoning	193.58	Shanxi*	4.50
6	Xinjiang	157.20	Qinghai	4.40
7	Neimenggu	149.58	Shandong	4.10
8	Jilin	142.87	Jiangsu	3.80
9	Hebei	109.47	Hebei	3.60
10	Ningxia	104.23	Zhejiang	3.60
11	Jiangxi	103.26	Henan	3.50
12	Zhejiang	101.81	Yunnan	3.50
13	Jiangsu	95.29	Gansu	3.50
14	Fujian	95.06	Hunan	3.40
15	Qinghai	94.41	Sichuan	3.30
16	Gansu	93.43	Hubei	3.10
17	Shanxi	93.25	Guangdong	3.10
18	Guangdong	88.13	Shanxi	3.00
19	Shandong	84.73	Guangxi	2.80
20	Hubei	82.73	Jilin	2.70
21	Hunan	77.07	Fujian	2.60
22	Anhui	76.87	Ningxia	2.50
23	Henan	75.96	Guizhou	2.30
24	Shanxi*	75.46	Heilongjiang	2.20
25	Yunnan	62.42	Neimenggu	2.00
26	Guangxi	61.35	Jiangxi	2.00
27	Sichuan	57.31	Xinjiang	1.90
28	Guizhou	54.77	Anhui	1.70
29	Hainan	..	Hainan	..
30	Xizang	..	Xizang	..

Notes: (1) Growth rates are calculated at 1978 constant prices; (2) Shanxi* is the province in western China; (3) .. denotes that data are not available.

Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

Table 31 **Uneven growth and initial GDP level of China's provinces, 1978–1993**

Order	Region	Per capita GDP in 1978 (*yuan*)	Region	Average annual growth rate of per capita GDP, 1978–1993 (%)
1	Shanghai	2483.97	**Guangdong**	11.26
2	Beijing	1280.92	**Zhejiang**	10.80
3	Tianjin	1141.57	**Jiangsu**	9.44
4	Liaoning	666.47	**Fujian**	9.31
5	Heilongjiang	553.59	**Shandong**	9.11
6	**Jiangsu**	427.22	Xinjiang	8.90
7	Qinghai	425.75	Jilin	8.17
8	Jilin	381.43	Anhui	8.16
9	**Guangdong**	364.78	Yunnan	8.13
10	Shanxi	363.05	Henan	8.11
11	Hebei	361.99	Sichuan	7.74
12	Ningxia	348.88	Beijing	7.60
13	Gansu	346.15	Shanxi*	7.46
14	Hubei	330.06	Jiangxi	7.44
15	**Zhejiang**	326.69	Neimenggu	7.41
16	**Shandong**	319.97	Guizhou	7.38
17	Xinjiang	312.49	Liaoning	7.33
18	Neimenggu	307.46	Gansu	7.33
19	Shanxi*	292.55	Hebei	7.28
20	Hunan	284.54	Hubei	7.24
21	Jiangxi	273.33	Ningxia	7.06
22	**Fujian**	270.59	Shanghai	6.64
23	Anhui	239.57	Hunan	6.53
24	Sichuan	237.21	Guangxi	6.16
25	Henan	230.54	Shanxi	6.04
26	Yunnan	223.39	Tianjin	5.61
27	Guangxi	223.25	Heilongjiang	5.01
28	Guizhou	173.57	Qinghai	4.54
29	Hainan	..	Hainan	..
30	Xizang	..	Xizang	..

Notes: (1) Provinces in bold are the five fastest-growing in the period; (2) Shanxi* is the province in western China; (3) Growth rates are calculated at 1978 constant prices; (4) .. denotes that data are not available.

Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

Tables 30 and 31 provide important information for the test. First, one of the most significant differences between the pre-1978 and the post-1978 periods is that the former period witnessed the fastest growth of the most advanced regions while the latter period witnessed the fastest growth of relatively backward regions.[10] Apparently, backwardness advantage played a role in uneven regional development in

[10] Data on GDP before 1978 are not available, so data on national income are used here for that period. Shanghai, Beijing, Tianjin, Liaoning, and Heilongjiang were the most advanced regions throughout the pre-1978 period, so all other regions can be considered as initially backward regions in the post-1978 period. One exception is Heilongjiang which ranked twenty-fourth in growth of per capita national

post-1978 China. However, the fact that not all backward regions (such as Guangxi, Shanxi, and Qinghai) grew faster than advanced ones indicates that there must have been other factors which have contributed to the fast growth of initially backward regions over the period. Second, both the pre-1978 and the post-1978 periods witnessed the fastest growth of some coastal regions, although the fastest-growing coastal regions in the latter period are different from those in the former period. Apparently, location advantage played a role in uneven regional development in China. However, the fact that not all coastal regions (such as Shanghai, Tianjin, and Liaoning) grew faster than interior regions in post-1978 China suggests that there must have been other factors which have contributed to China's uneven regional growth.

Then it is shown that the ten fastest-growing provinces are those which have made the best use of market mechanisms to accelerate the growth of efficient non-primary industry and efficient non-state owned enterprises, for they took the lead either in the growth of secondary industry, tertiary industry, or non-state owned enterprises. Few of them took the lead in the growth of primary industry or in the growth of state-owned enterprises (Tables 32 and 33). Special attention should be given to the fastest-growing Five Dragons in southeast coastal China (Guangdong, Jiangsu, Zhijiang, Fujian, and Shandong), which took the lead in both the growth of non-primary industry (especially secondary industry) and the growth of non-state owned enterprises. Within the Five Dragons, special attention should be given to the Four Tigers, that is, the four Special Economic Zones (SEZs)—Shenzhen, Zhuhai, Shantou, and Xiamen. The four tigers as a group also witnessed, as shown in Table 34, fast growth of non-primary industry and non-state owned enterprises.

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income in the period between 1952 and 1978, though it ranked fourth in per capita national income in the initial year (1952) of the period.

Table 32 **Average annual growth rate of per capita GDP in industry sectors in China's provinces, 1978–1993** (%)

Order	Region	Primary	Region	Secondary	Region	Tertiary	Region	All non-primary industry
1	**Xinjiang**	8.02	**Zhejiang**	14.52	**Xinjiang**	13.12	**Zhejiang**	13.80
2	Neimenggu	6.46	**Guangdong**	13.34	**Henan**	12.83	**Guangdong**	13.04
3	Gansu	6.23	**Fujian**	12.58	**Yunnan**	12.60	**Anhui**	11.85
4	Tianjin	5.86	**Jiangsu**	11.64	**Jilin**	12.42	**Fujian**	11.62
5	**Jilin**	5.57	**Shandong**	11.63	**Anhui**	12.39	**Jiangsu**	11.43
6	Beijing	4.96	Anhui	11.62	Guangdong	12.38	**Shandong**	11.02
7	**Guangdong**	4.91	Sichuan	10.37	Beijing	11.65	**Yunnan**	10.54
8	**Shandong**	4.90	Yunnan	9.38	Zhejiang	11.59	**Henan**	10.42
9	Ningxia	4.87	Hubei	9.32	Gansu	11.59	Sichuan	9.98
10	Liaoning	4.57	Shanxi*	9.25	Liaoning	11.44	Shanxi*	9.72
11	**Fujian**	4.35	Jiangxi	9.09	Guizhou	10.97	Jiangxi	9.63
12	**Yunnan**	4.31	Henan	9.02	Jiangsu	10.87	**Xinjiang**	9.40
13	Guizhou	4.14	Guangxi	8.98	Shanxi*	10.81	Hubei	9.36
14	Jiangxi	4.03	Guizhou	8.28	Jiangxi	10.56	Guizhou	9.21
15	Sichuan	3.93	Hunan	8.08	Shandong	10.52	**Jilin**	9.17
16	**Henan**	3.83	Jilin	7.62	Hunan	10.02	Hunan	8.73
17	Guangxi	3.48	Hebei	7.52	Neimenggu	9.86	Beijing	8.39
18	Hubei	3.30	Ningxia	7.25	Hebei	9.82	Hebei	8.29
19	Shanxi*	3.28	Xinjiang	7.08	Heilongjiang	9.50	Guangxi	8.12
20	**Jiangsu**	3.18	Shanxi	6.99	Hubei	9.49	Ningxia	7.82
21	Heilongjiang	3.13	Beijing	6.79	Fujian	9.34	Gansu	7.74
22	Hebei	3.11	Liaoning	6.69	Sichuan	9.21	Neimenggu	7.73
23	Hunan	2.95	Neimenggu	6.51	Ningxia	9.06	Liaoning	7.66
24	**Zhejiang**	2.87	Shanghai	6.14	Shanghai	8.94	Shanxi	7.10
25	Qinghai	2.69	Gansu	5.65	Shanxi	7.39	Shanghai	6.78
26	**Anhui**	2.25	Tianjin	4.88	Guangxi	6.86	Tianjin	5.26
27	Shanxi	1.66	Qinghai	4.72	Tianjin	6.30	Qinghai	5.19
28	Shanghai	0.64	Heilongjiang	3.92	Qinghai	5.95	Heilongjiang	5.17
29	Hainan	..	Xizang	..	Xizang	..	Hainan	..
30	Xizang	..	Hainan	..	Hainan	..	Xizang	..

Notes: (1) Provinces in bold are the ten fastest-growing in the period; (2) Shanxi* is the province in western China; (3) Growth rates are calculated at 1978 constant prices; (4) .. denotes that data are not available.

Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

Table 33 **Average annual growth rate of state-owned and non-state owned enterprises in industry in China's provinces, 1978–1993** (%)

Order	Region	Industry	Region	Non-state owned	Region	State-owned
1	**Zhejiang**	20.33	**Guangdong**	38.09	**Guangdong**	14.02
2	**Guangdong**	19.81	**Shandong**	37.10	Xinjiang	13.99
3	**Fujian**	18.27	**Fujian**	24.46	**Zhejiang**	13.15
4	**Jiangsu**	17.87	**Zhejiang**	24.12	Yunnan	13.05
5	**Shandong**	17.68	**Jiangsu**	22.24	Neimenggu	12.45
6	Anhui	15.63	Anhui	22.08	Guangxi	12.22
7	Xinjiang	15.09	Gansu	21.73	Guizhou	12.16
8	Henan	15.03	Shanghai	20.85	**Shandong**	12.10
9	Jiangxi	14.59	Xinjiang	20.27	Jiangxi	12.07
10	Sichuan	14.52	Guizhou	20.00	**Fujian**	11.99
11	Hebei	14.27	Hebei	18.80	Jilin	11.84
12	Hubei	13.97	Henan	18.62	Hubei	11.80
13	Neimenggu	13.87	Tianjin	18.58	Qinghai	11.73
14	Guangxi	13.80	Beijing	18.54	Anhui	11.72
15	Yunnan	13.76	Sichuan	18.38	Sichuan	11.66
16	Jilin	13.10	Jiangxi	18.18	**Jiangsu**	11.55
17	Guizhou	13.02	Liaoning	17.83	Ningxia	11.37
18	Hunan	12.91	Neimenggu	17.77	Henan	11.34
19	Shanxi	12.65	Hubei	17.67	Hunan	10.69
20	Shanxi*	12.64	Shanxi*	16.89	Heilongjiang	10.54
21	Liaoning	12.35	Guangxi	15.29	Shanxi*	10.49
22	Ningxia	12.25	Yunnan	15.28	Shanxi	10.15
23	Beijing	11.82	Shanxi	15.24	Hebei	10.01
24	Qinghai	11.53	Hunan	15.18	Gansu	9.31
25	Heilongjiang	11.22	Jilin	14.42	Liaoning	9.30
26	Tianjin	11.21	Ningxia	14.20	Beijing	8.89
27	Gansu	10.90	Heilongjiang	13.74	Tianjin	7.45
28	Shanghai	10.00	Qinghai	9.09	Shanghai	6.52
29	Hainan	..	Hainan	..	Hainan	..
30	Xizang	..	Xizang	..	Xizang	..

Notes: (1) Provinces in bold are the five fastest-growing in the period; (2) Shanxi* is the province in western China; (3) Growth rates are calculated at 1978 constant prices; (4) .. denotes that data are not available.

Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

Table 34 **Uneven sectoral growth in the Four Tigers, 1980–1993** (%)

Sectoral output (per capita)	Growth rate
GDP	18.10
Primary industry GDP	2.93
Secondary industry GDP	22.23
Tertiary industry GDP	16.15
Output value of industry	26.25
Output value of state-owned industry enterprises	16.20
Output value of non-state owned industry enterprises	35.17

Note: (1) Growth rates are calculated at 1980 constant prices; (2) Data for the period between 1978 and 1990 exclude Xiamen.
Sources: Statistical Yearbooks of the Four SEZs, China.

Given that uneven sectoral growth in transition or opening economies is introduced by market orientations through uneven resource allocation, as explained previously, it should not come as a surprise when it is found that resources have been increasingly moving into the Five Dragons and the Four Tigers, as shown in Table 35 and Figure 51.[11] Most previous studies explained the capital flows to these regions as caused by the change in government investment policy in favour of these regions and, therefore, concluded that increasing inputs were an extremely important source of the rapid economic growth of southeast coastal regions (see, for instance, Liu Guoguang 1994; Li Ling 1996). Actually, the functioning of market orientations in the transition or opening process lay behind the capital flows between regions, and non-primary industry and non-state owned enterprises played a crucial role in the rise of the Five Dragons.

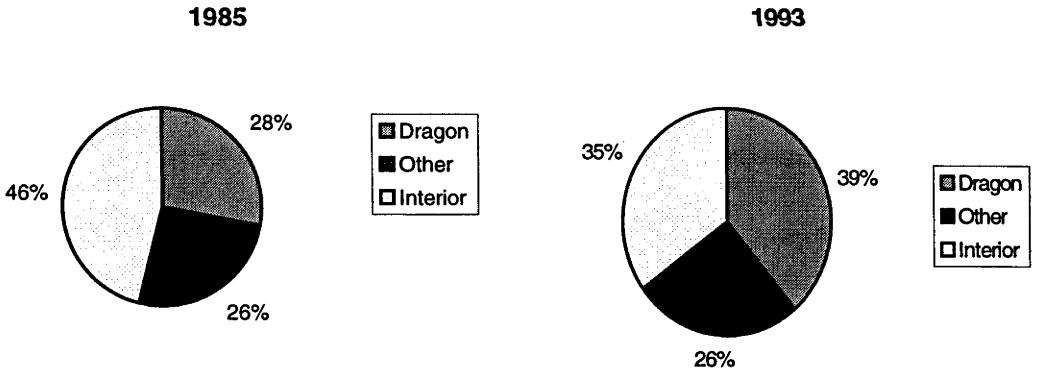
[11] Labour flows between regions are still under government control, and data on the true volume of the flow are not available, nor are data on human capital flows. Therefore, only physical capital flows between regions are shown here.

Table 35 **Uneven growth of investment in fixed assets between China's main regional groups, 1985–1993** (%)

Regional group	Average annual growth rate		
	Investment	State investment	Non-state investment
Coastal provinces	18.89	17.76	20.24
Five Dragons	20.38	19.15	21.70
Four Tigers	30.11	..	..
Inland provinces	14.19	15.68	10.99
Central	13.41	15.39	9.55
Western	15.57	16.13	13.84

Notes: (1) Data for the period between 1978 and 1990 exclude Xiamen; (2) Calculated at current prices; (3) .. denotes that data are not available.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of individual regions in China, China.

Figure 51 **Changing share of Five Dragons in China's investment in fixed assets, 1985–1993** (%)



Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China.

Three points need to be made here. First, with regard to uneven industry growth, an interesting phenomenon is that the five fastest-growing provinces were all coastal regions (the Five Dragons) and they took the lead in the growth of secondary industry; whereas the next five fastest-growing were all interior regions (Xianjiang,

Henan, Yunnan, Jilin, and Anhui) and they took the lead in the growth of tertiary industry. This seems to suggest that secondary industry outweighs tertiary industry in determining regional growth, and that secondary industry played an overwhelming role in determining the economic growth of coastal regions while tertiary industry played such a role in determining the economic growth of interior regions.

The factors behind this phenomenon appear to be very complicated, and an understanding of them is beyond the scope of the thesis. We can only speculate about some possible reasons. Does it have something to do with industry type or with linkages between industries? Does it have something to do with differences in initial conditions? Does it have something to do with difference in opportunities for marketization or with differences in location? Speculation about the possibilities point to directions for future research.

Given China is a special case, however, one possible explanation deserves particular attention. Under its outward-looking industrialization strategy, coastal regions had a policy advantage given by the central government in industry development with regard to access to foreign capital and foreign technology and, therefore, could take the lead in the development of secondary industry. Without this policy advantage, interior regions found it difficult to compete with coastal regions in industrialization and, therefore, had to pay more attention to the development of labor-intensive tertiary industry. After all, retail sales, or tourism can be developed without much assistance from foreign capital and technology.

Secondly, the rise of the Five Dragons in southeast coastal China sheds light on why a narrowing inter-provincial output disparity was accompanied by a widening coastal-interior disparity. The reason is quite simple from Table 31. The Five Dragons were all relatively backward regions in the initial year of the period, so their rise

narrowed the inter-provincial output disparity. Meanwhile, they are all coastal regions, so their rise widened the coastal-interior output disparity. Given the important role of the rise of efficient sectors in the Five Dragon, the test indicates that the functioning of market orientations has influenced the play of both backwardness advantage and location advantage, and lay behind both the inter-provincial output convergence and the coastal-interior output divergence in post-1978 China.

Thirdly, the special policy treatment that Chinese government gave to coastal regions facilitated market orientations in these regions, especially the Five Dragons. The Chinese government began to give priority to coastal regions from the very beginning of opening up. In 1980, the government decided to establish four Special Economic Zones (SEZs) in Guangdong and Fujian provinces, and gave them special policy treatment in relation to terms of foreign investment, arrangements of foreign trade, exemption from tax, and so on. In 1984, similar policy treatment was extended to 14 coastal cities (Dalian, Tianjin, Qinhuangdao, Yantai, Qingdao, Shanghai, Wenzhou, Lianyungang, Fuzhou, Guangzhou, Haikou, Nantong, Ningpo, and Zhanjiang), and a number of 'Economic and Technological Development Districts' (ETDD) were established. Between 1985 and 1988, these policies were extended to other coastal cities and counties, and the 'Hainan Special Economic Zone' took shape. Not until 1992 were the policies extended to some of the interior regions. This has important policy implications for China to help backward regions to catch up, which will be discussed in Chapter 7.

Approach 3. Here, attention is focused on the divergence tendency in livelihood indicators of development. There is no doubt that improvements in livelihood in a region depend on the output growth in the region concerned, which, as shown above,

is determined mainly by the functioning of market orientations in the growth process in transition or opening economies.[12] However, the fact that inter-provincial livelihood disparities did not change in the same direction as inter-provincial output disparities suggests that there must have been other factors that influenced the improvement in people's livelihood in individual regions. In China's case, one of such factors was government intervention in the form of regional income redistribution. In examining determinants of the change in regional livelihood disparities, therefore, it is crucial to see how the extent to which government intervenes in regional income redistribution changed owing to increasing market orientations in the transition or opening process. A pioneer work on this topic can be found in Zhang (1993), and here we draw heavily on his methodology.

[12] The fact that coastal-interior output and livelihood disparities widened simultaneously suggests that the improved livelihood of the residents in coastal regions can be partly attributed to the rapid output growth of these regions, especially the Five Dragons.

Table 36 **Redistribution of regional income in China, 1952–1978** (100 million *yuan*)

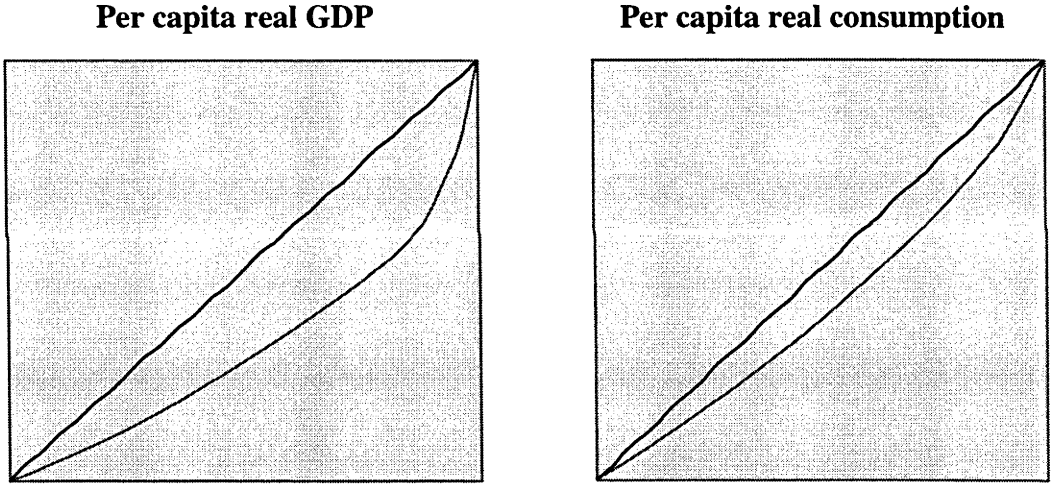
Region	Inflow	Outflow	Net inflow (+) and net outflow (-)
Beijing	58.90	164.30	-105.40
Tianjin	0.00	381.00	-381.00
Hebei	44.00	119.20	-75.20
Shanxi	16.40	50.60	-34.20
Neimenggu	61.30	58.80	2.50
Liaoning	0.00	737.80	-737.80
Jilin	22.70	47.00	-24.30
Heilongjiang	0.00	301.30	-301.30
Shanghai	0.00	1757.40	-1757.40
Jiangsu	0.00	321.70	-321.70
Zhejiang	0.00	89.90	-89.90
Anhui	9.60	39.80	-30.20
Fujian	72.70	1.60	71.10
Jiangxi	65.10	13.30	51.80
Shandong	1.20	190.40	-189.20
Henan	67.30	26.80	40.50
Hubei	65.60	95.20	-29.60
Hunan	0.00	132.20	-132.20
Guangdong	11.60	94.20	-82.60
Guangxi	86.30	0.20	86.10
Hainan	0.00	0.00	0.00
Sichuan	191.60	10.50	181.10
Guizhou	161.70	1.90	159.80
Yunnan	138.70	1.40	137.30
Xizang	0.00	0.00	0.00
Shanxi*	103.40	0.60	102.80
Gansu	74.40	23.60	50.80
Qinghai	11.40	0.00	11.40
Ningxia	30.00	0.00	30.00
Xinjiang	129.50	0.10	129.40

Note: National income in a region minus national income actually utilised in the region, the positive is outflow and the negative is inflow.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

As we all know, China's government insisted on communist equalitarianism in the pre-1978 period. According to communist equalitarianism, residents in all regions should enjoy a living standard as equal as possible. To this end, the Chinese government requisitioned a large portion of income from the richer and faster-growing regions (especially Shanghai) to subsidise residents in more backward and more slowly-growing regions (especially western provinces). As shown in Tables 30,

31 and 36, Shanghai, Tianjin, and Liaoning were among the richest and the fastest-growing regions, and contributed the most to the requisition program in the pre-1978 period. They together contributed 62 per cent of the total requisitioned regional income in the period between 1952 and 1978, and most of backward interior provinces were net recipients of it. An exception was Beijing, the capital city with all the central government institutions, which did not contribute very much to the requisition program though it was the fastest-growing region over that period.

Figure 52 **Lorenz curves for provincial output and livelihood indicators in China in 1978**



Note: Calculated at 1978 constant prices.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

Owing to the government intervention in the form of regional income redistribution, therefore, residents in backward regions enjoyed, as shown in Table 38, a relatively high living standard as compared with their output level. To encourage urban residents to stay in backward interior regions (especially Tibet and Qinghai), the central government actually even offered them a wage level higher than that in

most other regions.[13] As a result, the inter-provincial livelihood disparity narrowed remarkably despite a widening of the inter-provincial output disparity over that period. In 1978, as shown in Figures 52, the inter-provincial livelihood inequality was much narrower than the inter-provincial output inequality.

Table 37 **Redistribution of regional income in China, 1978–1992** (100 million *yuan*)

Region	Inflow	Outflow	Net inflow (+) and net outflow (-)
Beijing	297.46	119.06	178.40
Tianjin	18.56	258.89	-240.33
Hebei	0.00	429.20	-429.20
Shanxi	144.19	27.61	116.58
Neimenggu	438.38	0.00	438.38
Liaoning	0.00	707.85	-707.85
Jilin	202.76	0.00	202.76
Heilongjiang	0.00	249.38	-249.38
Shanghai	0.00	1619.62	-1619.62
Jiangsu	0.00	924.23	-924.23
Zhejiang	0.00	361.00	-361.00
Anhui	44.72	42.00	2.72
Fujian	123.99	1.78	122.21
Jiangxi	153.85	1.20	152.65
Shandong	0.00	569.16	-569.16
Henan	0.00	188.85	-188.85
Hubei	0.00	329.80	-329.80
Hunan	35.04	96.80	-61.76
Guangdong	63.50	374.94	-311.44
Guangxi	190.57	0.00	190.57
Hainan	73.11	0.00	73.11
Sichuan	197.38	9.48	187.90
Guizhou	161.72	0.00	161.72
Yunnan	274.69	0.00	274.69
Xizang	89.67	0.00	89.67
Shanxi*	504.98	0.00	504.98
Gansu	205.82	12.30	193.52
Qinghai	198.53	0.00	198.53
Ningxia	122.09	0.00	122.09
Xinjiang	548.81	0.00	548.81

Note: National income in a region minus national income actually utilised in the region, the positive is outflow and the negative is inflow.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

[13] In 1978, for instance, the average wages in Tibet were higher than those in most provinces in China.

After 1978, the re-linking with market systems led to increasing competition among provinces. As a result, regional autonomy strengthened, and government intervention in regional income redistribution weakened. In the period between 1952 and 1978, for instance, about 11 per cent of provincial income was requisitioned by the central government for regional income redistribution. In the period between 1979 and 1992, however, the share fell to about 5 per cent. In the meantime, government subsidies for daily living necessities (mainly for residents in backward regions) decreased enormously along with the decrease in government revenues. From 1978 to 1995, for instance, the ratio of government revenues to GDP fell from 35 per cent to 11 per cent, while the ratio of government subsidies for daily living necessities to GDP fell from about 3.5 per cent to 0.7 per cent. The widening of regional livelihood disparities was, therefore, closed related to the weakening of government intervention in the form of regional income redistribution in the re-linking process, as observed by the World Bank (1997:27):

> There will always be a revenue gap between China's poorer and richer provinces. Without an effective system for transferring revenues, underlying inequalities will be reinforced by unequal spending... The current system permits few fiscal transfers from richer to poorer provinces or counties. Each region is required to be more or less fiscally independent, tailoring its public expenditures to the revenues in can collect. As a result per capita expenditures vary widely across provinces.

In consideration of this, the widening of regional livelihood disparities over the period can be taken as caused directly by two regional forces. On the one hand, it was a result of the strengthening autonomy of the most advanced 'old industrial' regions such as Shanghai, Tianjin, and Liaoning. Although these regions were still among the main contributors to the requisitioned regional income in the post-1978

period, the share of their contribution fell remarkably.[14] The most obvious case is Shanghai, as shown in Tables 36 and 37. In the period between 1952 and 1978, Shanghai contributed 38 per cent of all the requisitioned regional income. In the period between 1979 and 1992, its share fell to about 26 per cent. On the other hand, it was a result of the strengthening autonomy of the fastest-growing regions (especially Guangdong and other southeast coastal provinces) in the post-1978 period. Although these regions contributed an increasing share of the requisitioned regional income in the post-1978 period, the amount of the requisitioned income was still rather small in consideration of their rapid economic growth. In the post-1978 period, for instance, Guangdong ranked first in per capita GDP growth, but its contribution to the requisitioned regional income was even less than Hebei and Hubei which were much poorer and grew much more slowly than Guangdong!

The two regional forces explain why there was a widening of regional disparities in livelihood indicators of development in the period, and also suggest that residents in interior regions are the main losers from the relaxation of government intervention in regional income redistribution. Relative to the richest region Shanghai, as shown in Table 38, residents in most interior regions witnessed a declining living standard while those in most coastal regions witnessed a rising living standard in the post-1978 period. In a word, the increasing regional autonomy and the corresponding relaxation of government intervention in regional income redistribution introduced by market orientations in the transition or opening process contributed significantly to the widening of inter-provincial livelihood disparity and the widening of coastal-interior livelihood disparity.

[14] Their share fell from 62 per cent in the pre-1978 period to 41 per cent in the post-1978 period. Beijing, one of the richest regions, became a net recipient of the requisitioned regional income in the

Table 38 **Main development indicators for China's provinces in 1978 and 1994** (Shanghai=100)

Region	Per capita real GDP		Per capita real income of rural residents		Per capita real income of urban residents	
	1978	1994	1978	1994	1978	1994
Beijing	51.57	55.19	80.09	71.29	74.62	86.75
Tianjin	45.96	41.34	54.51	66.04	73.72	82.73
Hebei	14.57	15.40	40.61	47.97	56.36	62.83
Shanxi	14.62	12.61	36.20	36.06	58.46	47.57
Neimenggu	12.38	12.49	46.31	40.21	55.88	51.16
Liaoning	26.83	26.78	65.91	61.09	70.04	55.11
Jilin	15.36	17.34	64.72	54.05	56.44	45.97
Heilongjiang	22.29	15.78	61.15	52.59	69.00	44.49
Shanghai	100.00	100.00	100.00	100.00	100.00	100.00
Jiangsu	17.20	27.80	40.97	66.97	58.81	68.10
Zhejiang	13.15	26.89	58.78	77.98	76.48	81.06
Anhui	9.64	12.25	40.38	37.40	66.45	59.97
Fujian	10.89	18.57	49.00	59.59	69.32	58.41
Jiangxi	11.00	12.96	50.13	47.81	66.28	51.90
Shandong	12.88	18.91	40.81	60.12	73.76	76.24
Henan	9.28	11.35	37.41	41.92	73.29	58.72
Hubei	13.29	14.54	39.37	46.39	67.35	60.42
Hunan	11.45	10.77	50.79	36.16	66.14	58.75
Guangdong	14.69	29.67	62.85	72.18	68.39	100.18
Guangxi	8.99	9.14	42.75	37.63	59.02	60.65
Hainan	..	26.49	..	33.15	..	56.74
Sichuan	9.55	10.86	45.28	35.61	66.58	56.85
Guizhou	6.99	7.03	38.83	31.58	52.48	57.00
Yunnan	8.99	9.99	46.67	30.24	64.33	69.43
Xizang	..	14.34	..	41.12	..	83.51
Shanxi	11.78	11.66	47.74	30.58	59.22	49.41
Gansu	13.94	12.70	35.96	28.49	70.49	53.08
Qinghai	17.14	11.73	42.40	36.60	67.18	52.37
Ningxia	14.05	12.07	41.33	34.40	65.43	54.95
Xinjiang	12.58	15.94	42.40	36.45	85.56	57.42

Notes: **(1)** Calculated at 1978 constant prices; (2) .. denotes that data are not available.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

post-1978 period.

The above tests support the hypothesis that although backwardness advantage and location advantage played a role in uneven regional development, the functioning of market orientations has been the most important source of uneven regional development in post-1978 China. The functioning of market orientations can explain very convincingly the three most remarkable phenomena in the period: inter-provincial output convergence, inter-provincial livelihood divergence, and coastal-interior divergence in both output and livelihood indicators of development.

Significance of uneven regional development

Uneven regional development has increasing significance for China in the re-linking or opening process. On the one hand, it has contributed significantly to China's rapid economic growth and remarkable improvements in people's livelihood. On the other hand, it has led to realignments of regional economies and changes in the structure of the national economy.

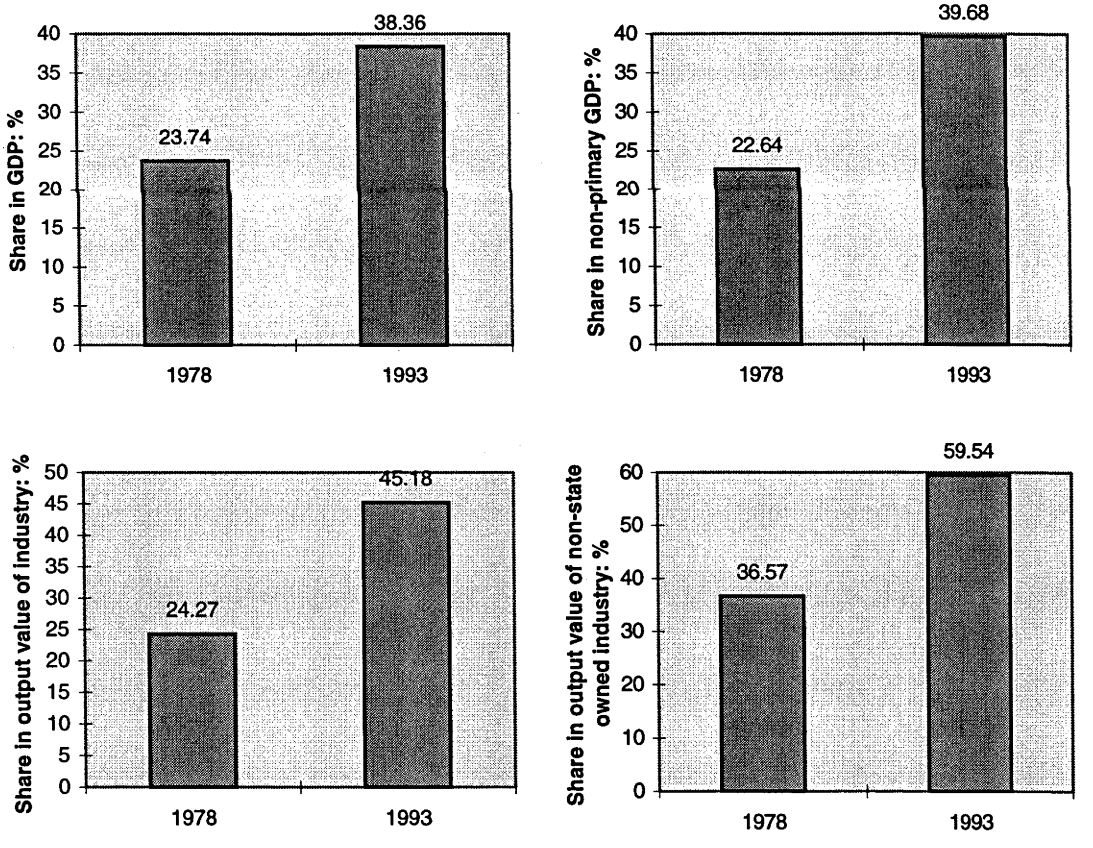
Contribution to economic growth and improvement in people's life

In a sense, China's economic growth and improvements in people's livelihood in the post-1978 period were rooted in the rise of the fastest-growing regions, especially the Five Dragons and the Four Tigers. The contribution of uneven regional development to China's extraordinary economic performance finds expressions in many aspects, but only the most important are highlighted.

Contribution to rapid economic growth. The fastest-growing regions, especially the Five Dragons and Four Tigers in southeast coastal China, contributed significantly to

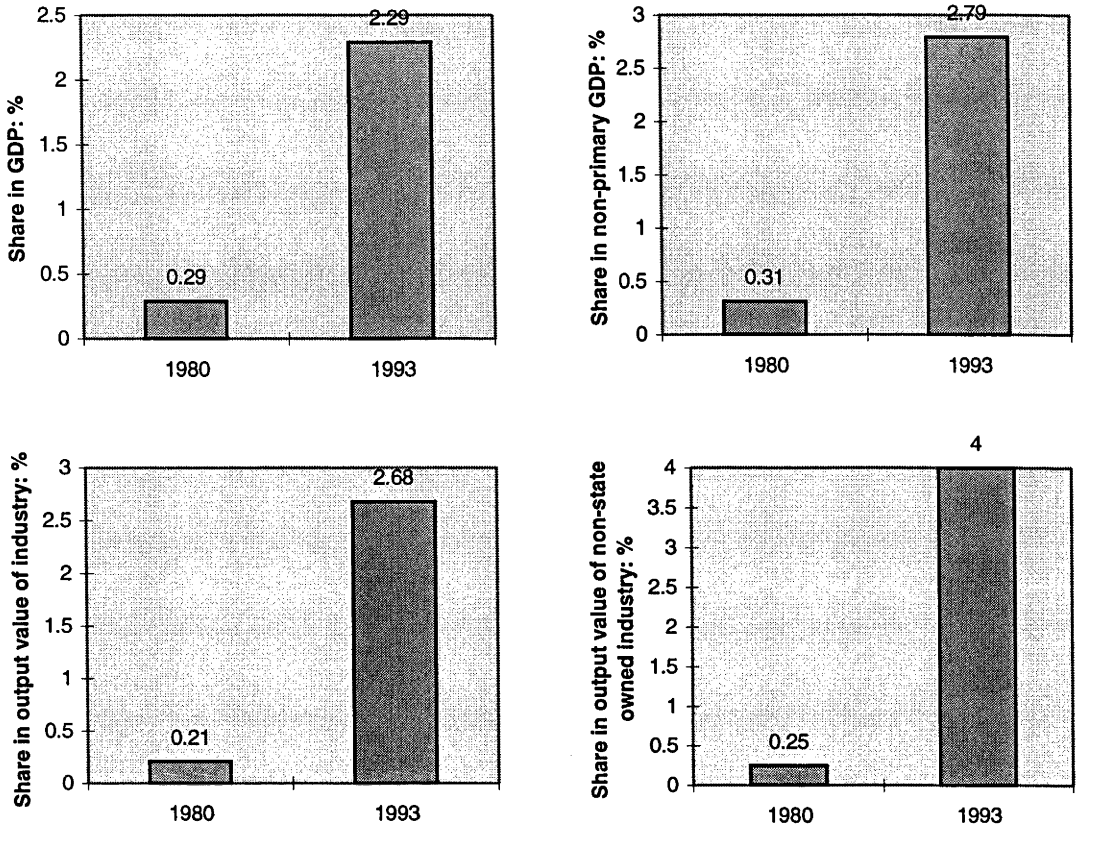
China's rapid economic growth. In 1978, as shown in Figure 53, the contribution of the Five Dragons to China's GDP, China's non-primary industry GDP, China's output value of industry, and China's output value of non-state owned industry were 23.74 per cent, 22.64 per cent, 24.30 per cent, and 36.60 per cent, respectively. By 1993, their contribution to China' GDP had increased 1.62 times, their contribution to China's non-primary industry GDP had increased 1.75 times, their contribution to China's output value of industry had increased 1.86 times, and their contribution to China's output value of non-state owned industry had increased 1.63 times.

Figure 53 **Contribution of Five Dragons to China's main output indicators of development, 1978–1993** (%)



Note: Five Dragons are the five fastest-growing provinces in post-1978 China: Guangdong, Zhejiang, Jiangsu, Fujian, and Shandong.
Sources: *Statistical Yearbook of China 1983–1997*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

Figure 54 **Contribution of Four Tigers to China's main output indicators of development, 1980–1993** (%)



Note: Four Tigers are the four Special Economic Zones in Guangdong and Fujian provinces: Shenzhen, Shantou, Zhuhai, and Xiamen.
Sources: *Statistical Yearbook of China 1983–1997*, Beijing; Statistical Yearbooks of the four Special Economic Zones, China.

The Four Tigers increased their contribution even more remarkably. In 1980, as shown in Figure 54, the Four Tigers contributed only 0.29 per cent of China's GDP, 0.30 per cent of China's non-primary industry GDP, 0.21 per cent of China's output value of industry, and 0.2 per cent of China's output value of non-state owned industry. By 1993, however, their contribution to China's GDP had increased 7.9 times, their contribution to China' non-primary industry GDP had increased 9 times, their contribution to China's output value of industry had increased 12.8 times, and their contribution to China's output value of non-state owned industry had increased

16 times. By 1993, as shown in Table 39, the Four Tigers had surpassed 13 provinces in their contribution to China's GDP, 15 provinces in their contribution to China's non-primary industry GDP, 17 provinces in their contribution to China's output value of industry, and 21 provinces in their contribution to China's output value of non-state owned industry.

Table 39 **Share of 30 provinces and the Four Tigers in China's main output indicators of development in 1993** (%)

Region	GDP	Non-primary industry GDP	Output value of industry	Output value of non-state owned industry
Beijing	2.75	3.28	2.87	2.39
Tianjin	1.71	2.02	2.67	2.59
Hebei	5.39	5.62	4.98	5.27
Shanxi	2.25	2.46	2.08	1.86
Neimenggu	1.70	1.55	0.99	0.48
Liaoning	6.41	7.08	6.66	5.55
Jilin	2.29	2.27	1.96	1.19
Heilongjiang	3.83	4.04	2.65	1.12
Shanghai	4.82	5.96	6.32	5.67
Jiangsu	6.08	10.14	13.47	18.17
Zhejiang	3.41	6.44	7.54	10.53
Anhui	9.55	3.18	2.96	2.87
Fujian	3.61	3.53	2.94	3.86
Jiangxi	2.30	2.01	1.78	1.59
Shandong	8.86	8.83	11.33	14.32
Henan	5.30	5.06	4.64	4.72
Hubei	4.54	4.36	3.76	2.80
Hunan	4.07	3.62	2.73	2.38
Guangdong	10.28	10.78	9.94	12.65
Guangxi	2.85	2.54	1.72	1.35
Hainan	0.82	0.73	0.24	0.18
Sichuan	6.68	6.17	5.36	5.02
Guizhou	1.33	1.14	0.72	0.35
Yunnan	2.48	2.38	1.31	0.58
Xizang	0.12	0.08	0.01	0.00
Shanxi	2.14	2.11	1.54	1.05
Gansu	1.19	1.15	0.95	0.43
Qinghai	0.34	0.34	0.18	0.05
Ningxia	0.33	0.34	0.23	0.09
Xinjiang	1.61	1.53	0.85	0.32
Four Tigers	2.29	2.79	2.68	4.00

Note: Four Tigers are the four Special Economic Zones in Guangdong and Fujian provinces: Shenzhen, Shantou, Zhuhai, and Xiamen.
Sources: *Statistical Yearbook of China 1983–1997*, Beijing; Statistical Yearbooks of the four Special Economic Zones, China.

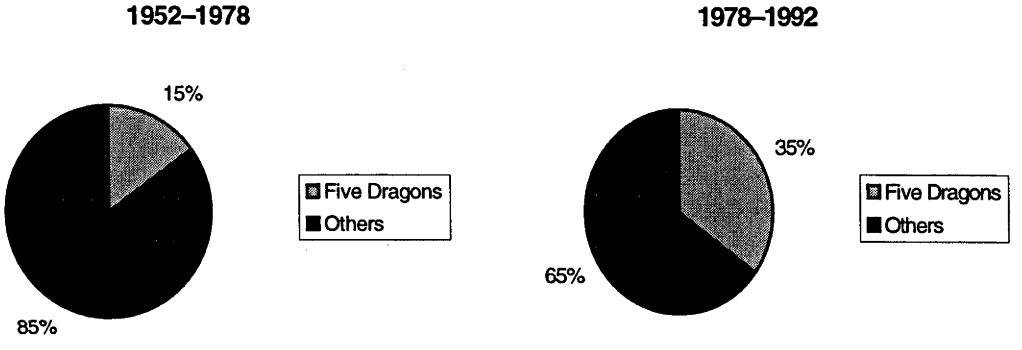
Contribution to a remarkable improvements in people's livelihood. As illustrated in Chapter 4, The number of people living in absolute poverty in China declined from 199 million in 1981 to 98 million in 1990, and to 60 million in 1995.[15] On average, as shown above, the fastest-growing regions in the post-1978 period have been what were the initially backward regions. The rapid economic development of initially backward regions played an important role in improving people's livelihood in China. Although regional living standards tended to diverge owing to the relaxation of government intervention in regional income distribution, the widening regional livelihood disparity cannot deny the overall remarkable improvement in people's livelihood, especially the remarkable improvement in people's livelihood in the relatively backward but fastest-growing regions.

Uneven regional development also contributed to the improvement in people's livelihood through redistribution of regional income. Although the central government has played a less important role in regional income redistribution since 1978, it still requisitioned about 5 per cent of regional income for redistribution, and the fastest-growing regions, especially the Five Dragons, have become increasingly important contributors to the regional income redistribution program. As shown in Figure 55, the Five Dragons contributed only 15 per cent of the regional income redistribution in the period between 1952 and 1978, but their contribution rose to 35 per cent in the post-1978 period. As the contribution to regional income redistribution by the previous four fastest-growing regions (Shanghai, Tianjin, Beijing, and Liaoning) decreased, the Five Dragons began to play an increasingly important role in the

[15] International Economic Databank, ANU; *China TV News* 12 August 1996, Beijing.

regional income redistribution program, and contributed significantly to the relief of poverty in the most backward regions in China, especially in the western provinces. Improved people's livelihood can, as shown in Chapter 4, lead to increased demand and improved efficiency in resource utilisation and, therefore, accelerated economic growth in labour-surplus developing countries, especially those in a transition or opening process.

Figure 55 **Increasing contribution of Five Dragons to China's regional income redistribution program in the post-1978 period** (%)



Note: Five Dragons are the five fastest-growing provinces in post-1978 China: Guangdong, Zhejiang, Jiangsu, Fujian, and Shandong.
Sources: *Statistical Yearbook of China 1983–1997*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

The above show only the 'direct' contributions of uneven regional development to China's economic miracle. There are some 'indirect' contributions which should be taken into consideration as well. Only some of them are highlighted here.

First, the fastest-growing regions, especially the Five Dragons and the Four Tigers, played an important role in attracting foreign capital and technology, and in facilitating China's trade with foreign countries. Although we do not have accurate

data, it has been acknowledged that foreign capital has increasingly moved into these regions, and that these regions have become an increasingly important channel for China's trade with other parts of the world. Along with the inflow of foreign capital and technology-intensive goods, advanced technology was increasingly introduced into China from the West, and contributed significantly to the rapid transformation and upgrading of technology in China.

Secondly, the fastest-growing regions, especially the Five Dragons and Four Tigers, became important models for other regions in China. When the Chinese leaders decided to establish the SEZs and other open areas in the coastal provinces in the early 1980s, they wanted to test their new policies. The extraordinary economic performance of these regions not only assured the policymakers of the success of their policy reforms, but also set an example for other regions. As China increasingly opened up to market forces, other regions began to make use of the successful experience of the fastest-growing Five Dragons and Four Tigers to accelerate economic development. The model role of the Five Dragons and the Four Tigers cannot be overestimated, though it cannot be assessed accurately by figures.

Impact upon realignment of regional economies

Uneven regional development, especially the rapid growth of the southeast Five Dragons and Four Tigers as well as other open areas, led to a marked change in the pattern of China's regional development and, therefore, had an increasing impact upon the realignment of China's regional economies. There are many characteristics of the regional realignment, but attention is given to two of them.

The rise of coastal provinces as an increasingly distinguished regional group. From 1978 onward, coastal provinces increasingly distinguished themselves as an advanced regional group, and left interior provinces far behind in both the output and the livelihood indicators of development. This signifies that the center of gravity of China's economic development has shifted from the 'Third Front' to coastal China.[16] Starting from the 'Sixth Five Year Plan' (1981–85) and the 'Seventh Five Year Plan' (1986–90), the Chinese government increasingly acknowledged the reality of the regional realignment, and replaced the division of 'Three Fronts' with that of 'Three Regional Groups' (Li Jingwen and Fan Mingtai 1994:63).[17]

The rise of coastal provinces as the richest regional group was mainly a result of the rapid growth of the newly industrialised regions in southeast coastal China, especially the Five Dragons and Hainan provinces.[18] As shown in Table 40, in 1978 we could find both coastal and interior provinces in the top ten most developed provinces in terms of output and livelihood indicators, while most of the southeast coastal provinces lagged behind. In 1993 (see Table 41), all the Five Dragons joined the 'group of ten' which now consisted exclusively of coastal provinces. Given that Shanghai, Beijing, Tianjin and Liaoning, the most developed regions in 1978, grew more slowly in the post-1978 period as compared with the previous period, the rise of coastal provinces as a regional group can be obviously attributed to the rapid growth of the Five Dragons.

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[16] The 'Third Front' included Sichuan, Guizhou, Shanxi (western China), Gansu, Qinghai, Ningxia, Quangxi, Hubei, Hunan, Shanxi (inland China), and formed the center of China's economic construction and industrialisation. The share of the Third Front in China's output value of industry increased, due to the inland-oriented regional development in the pre-1978 period, from 30 per cent in 1953 to 40 per cent in 1978 (Liu Guoguang 1994). 'First and Second Fronts' included the rest of the provinces located in coastal and border areas.

[17] 'Three Regional Groups' were the group of coastal provinces, of inland provinces, and of underdeveloped/minority provinces in the 'Sixth Five Year Plan'. They were the group of Eastern provinces, of Central provinces, and of Western provinces in the 'Seventh Five Year Plan'.

Table 40 **Main output and livelihood indicators of development in China's provinces in 1978** (*yuan* at current prices)

Order	Region	Per capita GDP	Region	Per capita income
1	Shanghai	2483.97	Shanghai	397.73
2	Beijing	1280.92	Beijing	315.31
3	Tianjin	1141.57	Tianjin	254.99
4	Liaoning	666.47	Liaoning	242.82
5	Heilongjiang	553.59	Heilongjiang	231.30
6	**Jiangsu**	427.22	**Guangdong**	219.93
7	Qinghai	425.75	Jilin	215.77
8	Jilin	381.43	Hainan	204.04
9	**Guangdong**	364.78	Xinjiang	197.10
10	Shanxi	363.05	**Zhejiang**	194.43
11	Hebei	361.99	**Fujian**	176.06
12	Ningxia	348.88	Jiangxi	171.49
13	Gansu	346.15	Hunan	163.40
14	Hubei	330.06	Neimenggu	161.28
15	**Zhejiang**	326.69	Xizang	159.75
16	**Shandong**	319.97	Shanxi*	159.48
17	Xinjiang	312.49	Qinghai	158.03
18	Neimenggu	307.46	Ningxia	157.91
19	Shanxi*	292.55	Yunnan	153.38
20	Hunan	284.54	**Shandong**	144.73
21	Jiangxi	273.33	Hubei	144.23
22	**Fujian**	270.59	Sichuan	143.99
23	Anhui	239.57	Anhui	139.48
24	Sichuan	237.21	**Jiangsu**	138.75
25	Henan	230.54	Guangxi	137.93
26	Yunnan	223.39	Shanxi	137.03
27	Guangxi	223.25	Gansu	136.20
28	Guizhou	173.57	Hebei	133.41
29	Hainan	..	Henan	132.95
30	Xizang	..	Guizhou	126.85

Notes: (1) Provinces in bold are the Five Dragons in southeast coastal China. Shanxi* is the province in western China, as distinguished from Shanxi in central China; (2) .. denotes that data are not available.

Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

[18] Hainan was separated from Guangdong provinces from 1988 onward.

Table 41 **Main output and livelihood indicators of development in China's provinces in 1993** (*yuan* at 1978 constant prices)

Order	Region	Per capita GDP	Region	Per capita income
1	Shanghai	7048.06	**Guangdong**	1177.22
2	Beijing	3969.38	Shanghai	1171.08
3	Tianjin	2932.56	Beijing	926.78
4	**Guangdong**	2034.01	**Zhejiang**	923.12
5	Liaoning	1945.84	Tianjin	820.18
6	**Jiangsu**	1878.79	**Shandong**	787.50
7	Hainan	1874.97	**Jiangsu**	727.72
8	**Zhejiang**	1811.16	Hainan	710.66
9	**Shandong**	1307.69	**Fujian**	666.30
10	**Fujian**	1228.06	Liaoning	660.09
11	Jilin	1216.41	Hubei	625.18
12	Heilongjiang	1171.02	Anhui	605.05
13	Xinjiang	1154.48	Hebei	581.20
14	Hebei	1081.90	Sichuan	563.08
15	Hubei	1025.74	Guangxi	562.64
16	Xizang	995.82	Jilin	554.49
17	Gansu	927.09	Xinjiang	528.06
18	Shanxi	918.91	Heilongjiang	519.82
19	Ningxia	912.24	Guizhou	517.77
20	Neimenggu	905.39	Yunnan	501.62
21	Jiangxi	873.44	Shanxi	495.22
22	Shanxi*	852.87	Henan	487.00
23	Qinghai	841.20	Neimenggu	485.88
24	Anhui	820.64	Jiangxi	483.09
25	Henan	806.21	Hunan	481.39
26	Sichuan	783.35	Xizang	458.91
27	Hunan	778.83	Shanxi*	450.59
28	Yunnan	710.21	Ningxia	442.36
29	Guangxi	635.96	Qinghai	422.44
30	Guizhou	516.20	Gansu	413.24

Note: Provinces in bold are the Five Dragons in southeast coastal China. Shanxi* is the province in western China, as distinguished from Shanxi in central China.
Sources: *Statistical Yearbook of China 1983–1995*, Beijing; Statistical Yearbooks of the 30 provinces and metropolitan cities in China, China.

The rise of various open areas as an increasingly distinguished cross-region group. From the very beginning of China's opening up, the Communist leaders have been cautious of western capital forces. They wanted to link China's version of socialism with the world market system, but they did not want to see China taken over by Western capitalism. They allowed only a very limited number of regional units in

some provinces to open up to foreign capital, and to enjoy special policy treatment in dealing with foreign investment and foreign trade. There arose, therefore, two cross-region groups in China: the group of open areas and the group of non-open areas.

Open areas are scattered, under different names, in individual provinces, and their numbers have been increasing over time. In 1980, there were only four open areas called 'Special Economic Zones' in Guangdong and Fujian provinces. By 1994, open areas had been too numerous to enumerate, and had been scattered not only in all the 12 coastal provinces but also in all the interior provinces except for Tibet and Xinjiang.

The open areas had more opportunities for making use of international markets in their economic development and, therefore, normally recorded better economic performance than the non-open areas. As a result, they increasingly distinguished themselves from non-open areas as the most developed individual areas at the provincial level, and as the most developed cross-region group at the national level. Although detailed data on all the open areas are not available, we have a hint of the development performance of the cross-region group from data on some of the open areas. In 1993, for instance, the open area of Zhujinag Delta in Guangdong province surpassed the non-open mountain area in that province by 2.7 times in terms of per capita GDP, and by 70 per cent in terms of per capita income of rural residents. In 1994, open areas in southern Jiangsu province surpassed the non-open area in the northern part of the province by 3.4 times in terms of per capita GDP, and by 1.5 times in terms of per capita income of rural residents. In that year, moreover, per capita GDP in Zhuhai Special Economic Zone reached 28056.2 *yuan*, ten times as high as that in most inland provinces![19]

[19] *Statistical Yearbook of China 1995*; *Statistical Yearbook of Zhuhai 1995*.

The above two characteristics of regional realignment in the period have had an increasing impact upon China' economic, social and political development, and have drawn increasing attention from China's policymakers. The rise of coastal provinces as a regional group and the rise of open areas as a cross-region group contributed significantly to China's rapid economic development, but they have led to a widening of the regional gap between the rich and the poor, and thereby pose problems with the equalitarianism in orthodox Communist ideology and China's conventional mentalitè. Although the widening regional gap is probably inevitable in the opening process (as suggested by the dependency/world-system paradigm from the perspective of international opening up), it has to be controlled to ensure sustainable development and national unity, and appropriate policies need to be taken to this end.

7 Conclusion

Since China opened up to market systems both domestically and internationally in 1978, China has undergone an extraordinary development experience in terms of rapid economic growth, a remarkable improvement in people's livelihood, the rise of efficient economic sectors, uneven regional development, and accelerated urbanisation and polarisation. In search of an understanding of the dynamics of China's development in the opening process, the study has dealt with a wide range of important issues, such as how to understand debates in the field of development studies over participation in the global market economy (Chapter 2), how to define China's radical change in development strategy since 1978 in the light of the debates (Chapter 3), how to estimate the contribution of the strategic change to China's growth 'miracle' (Chapter 4), how to estimate the impact of the strategic change upon uneven sectoral growth and the ensuing structural changes (Chapter 5), and how to estimate the impact of the strategic change upon uneven regional development (Chapter 6). In this concluding chapter, the main findings of the study are summarised. In the light of the findings, the main challenges that China faces are analysed, and appropriate policies are suggested. Lastly, implications of the study for other developing countries are discussed.

Main findings

There are several significant findings, but two are most important.

The first relates to the nature of the radical change in China's development strategy since 1978: from socialist de-linking to socialist re-linking with market systems both domestically and internationally, or, in other words, from passive to active participation in the global market economy. It was said that the finding 'offered unique insights' into the nature of China's strategic change, and can help to clarify a controversy over the issue.[1]

Since the strategic change occurred in 1978, the dominant official position in China has been that the new domestic policy is to reform and revitalise the economy and the new foreign policy is to open up to the outside world. Thus 'internal revitalisation and external opening up' or 'reform and opening up' have been repeatedly pronounced by the Chinese authorities to be at the core of the new development strategy. In initiating this new development strategy, however, Chinese policymakers did not give a theoretical explanation nor provide a logical rationale for the connection between the two cornerstones of the new development strategy. They learnt from past experience that the two were essential to China's rational development in a new era. In this theoretical vacuum, China pursued the strategy through 'trial and error'. As Deng Xiaoping stated, it was like 'groping for stones to cross the river'. Many questions arose from such ambiguity about the nature and exact meaning of China's emerging new development strategy.

In addressing the issue, some scholars have argued that 'reform' is the key to the new development strategy. They differed, however, on whether the reform mainly implies 'a strategy of development that maximises the autonomy of producing units and individuals and uses their initiative to replace centrally directed physical capital formation as the prime motive force of development' (Lippit 1987:212), or a shift

[1] This is quoted from a comment by an anonymous referee of the author's paper 'China's Open-Door Policy in Development Perspective', *Canadian Journal of Development Studies*, Vol. XVII, No.1,

from a 'speed-centred development' to an 'efficiency and benefit-centred development' (Liu Guoguang 1987:154), or 'a thoroughgoing structural reform of the system of economic planning and management' (White 1993:43). Others stressed the multidimensional nature of the new development strategy, with 'opening up' being one of four equally important parts—the other three being: (1) its primary objective is to satisfy people's needs; (2) it is balanced and coordinated; (3) it focuses on increasing economic benefits and promoting intensive growth (Dong Fureng 1986:67). Still others agreed upon the multidimensional nature of the new development strategy, but they identified, in its various dimensions, intensive growth as the essence of the strategy and, therefore, argued that 'the open-door policy must also be seen as an integral part of the intensive growth strategy and is best understood in the context of that strategy' (Watson and Xin 1986:94–7). The divergence of opinions among China analysts about the strategic changes is understandable, given the experimental nature of the new development strategy and the insufficient theorising about it in the last decade or so.

This study makes an innovative effort to address the controversial issue in the light of debates in the field of development studies. It finds that, from a development perspective, although China's new development strategy since 1978 covered all areas in domestic and foreign policies, its essence was to combine socialism with market mechanisms in order to increase efficiency and achieve socialist modernisations. As such, it signified a shift from socialist de-linking to socialist re-linking with market systems, both domestically and internationally. Although socialism was still maintained, market mechanisms were no longer considered to be incompatible with it. Such a sharp shift underlay, as well as found expressions in, all changes in China's

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1996.

domestic and foreign policies. As China underwent a fundamental change from a socialist de-linking to a socialist re-linking strategy, China actually opened up to market systems both domestically and internationally, and changed from a passive to an active participant in the global market economy. The finding is important in the sense that it links changes in domestic policies with those in foreign policies in a logical way so that we can clearly understand China's radical change in development strategy since 1978 and its significance for China as well as for international Communist movements.

When Communist movements started in the nineteenth century, the founders of the movements, Marx and Engels, saw all the miseries of the working class as resulting from simple commodity relations in a capitalist society where capitalists exploited workers by means of various forms of commodity exchange. They thought, therefore, that commodity relations should be abolished completely to establish an ideal society with equality and justice where people work for the society and get what they need from it. In such a society, the principle of distribution is 'from each according to his ability, to each according to his needs', and, therefore, there are no commodity exchanges and exploitation relations. The ideal Communist society offered hope for the poor and the oppressed, and Communist movements gained momentum in the second half of the nineteenth century and the first three quarters or so of the twentieth century. Communist parties succeeded not only in 'Second World' countries such as the former Soviet Union and other Eastern European countries, but also in 'Third World' countries such as China, Vietnam, North Korea, and Cuba. All the Communist parties set out to de-link from market systems both domestically and internationally immediately after they took power. In consideration of the immature 'material basis' for an ideal Communist society, the Communist regimes established

socialist societies as the first stage toward Communism. In this stage, the principle of distribution is 'from each according to his ability, to each according to his work'. Salary and money as means of commodity exchange were tolerated, and domestic and international trade was allowed. However, all the commodity relations were supposed to be increasingly limited in scope, and gradually replaced by economic planning. Socialist societies were actually designed as a process of de-linking from market systems in a gradual way.

The adoption of reform and open-door policies in 1978 announced the failure of the orthodox socialist de-linking strategy in China. As most other socialist countries soon followed in China's footsteps, they also declared the failure of the strategy in other parts of the world. It is interesting to note that former socialist de-linking countries were basically divided into three camps in the wake of the failure of the strategy. The first includes the former Soviet Union and other Eastern European countries in the 'Second World' where Communist regimes collapsed one after another, and socialist de-linking was replaced by various versions of a comprehensive 'capitalist' westernisation program. The second is represented by China and Vietnam in the 'Third World' where Communist regimes remain in power, and the de-linking strategy was replaced by re-linking different versions of socialism with market systems both domestically and internationally. The third is represented by North Korea where the Communist regime not only remains in power but is also leading the country towards disaster due to sticking to the orthodox socialist de-linking strategy.

Increasing evidence shows that the second camp has experienced the best development performance so far. In the 1990s, for instance, China and Vietnam witnessed rapid economic growth, whereas most former socialist countries in Eastern Europe witnessed low growth rates and North Korea is suffering from economic

recession and famine. If development performance is the touchstone of development strategies, it seems that the strategy of re-linking socialism with market mechanisms has worked comparatively well in former socialist de-linking societies, especially those in the 'Third World'. An explanation might be found in the large size of the poor rural population and the past colonial or semi-colonial experience, which make socialist equalitarianism very appealing to the majority of the population, and which enable the Communist regimes to maintain power even under circumstances of opening up to market systems. Whether the comprehensive 'capitalist' westernisation program will work in Eastern European countries remains to be seen, but the failure of the socialist de-linking strategy in North Korea appears confirmed. All events indicate that market systems still have great vitality and should not be replaced by planning, and that former socialist de-linking countries should try one way or another to open up to market systems. It can be expected that China will continue to carry on the socialist re-linking strategy since the experience of the past 20 years shows that the strategy has been quite successful as compared with other alternatives, as illustrated by the experiences of other former socialist de-linking countries. Therefore, reform and open-door policies should remain the main theme in China in the foreseeable future.

The second important finding relates to the dynamics of development in the re-linking or opening process. The study presents an innovative growth framework named the 'two-way net-increase effect' model for transition or opening economies, and suggests that the main dynamics of development in an opening economy should be found in the interaction between the increase in various inputs on the one hand and the increase in efficiency in input allocation and utilisation through market orientations on the other, especially in the market forces released in the re-linking or

opening process. Compared with the conventional neoclassical growth paradigm, the novelty of the model lies in three areas.

- The model divides inputs into human capital input and physical inputs. Along with the advance of science and technology, human capital plays an increasingly important role in economic growth in the contemporary world. Educational and cultural endowments have an increasingly significant impact not only upon scientific innovations and technological dissemination, but also upon administration of economic development. This is true of developed and developing countries alike. The importance of human capital in economic growth has been highlighted by the new growth theories; the model draws heavily on these developments and provides further empirical evidence for the argument.
- The model explains growth in terms of net increase effects. There are basically three approaches to effect estimation in conventional growth modelling: the aggregate effect (or stock effect), the growth rate effect, and the mixed effect. The aggregate production function of a neoclassical type (Equation 1 in Chapter 4) can only show how GDP increases from zero to a certain level. It can be used to estimate aggregate economic performance, but not economic growth *per se*. That is, it cannot explain how GDP increases from a previous level to a new level. The growth rate effect approach (Equation 2 in Chapter 4) is one way of measuring economic growth, but it has been mistaken as the only way to the point that the net increase effect has been completely forgotten. The advantage of net increase effect estimation over growth rate effect estimation is that the former gets rid of accumulative effects and, therefore, can avoid the trap of

having to arbitrarily estimate or proxy the capital stock. The mixed effect estimation was invented to avoid arbitrarily estimating the capital stock in conventional growth modelling, but it cannot provide consistent and reliable estimation since the estimated effects are mixed. Given the limitations of the conventional approaches, the study recommends the net increase effect estimation approach under which growth models can therefore be tested using reliable data.

- The model introduces two market variables to capture the increase in efficiency in resource allocation and utilisation introduced by market orientations in the light of the particular circumstance of the Chinese economy over the period: a labour-surplus developing country undergoing a re-linking or opening process. The idea that markets imply efficiency has become a commonsense in the everyday life of managers of firms. When a macroeconomic growth process is under consideration, however, this idea is not as easily understood as it appears to be. The study shows that the long-run supply curve is not vertical in labour-surplus developing countries in a transition or opening process, and market orientations can increase efficiency in resource allocation and utilisation in these countries at least in two ways: demand-led efficiency and productivity-related efficiency. It is here that lies the key to understanding the main contribution to China's economic growth made by the market forces released in the re-linking or opening process.

Thanks to the three innovations, the two-way net-increase effect model proves to be quite convincing in explaining the main dynamics of China's development performance in the post-1978 period. Using the model, the study focuses upon three

aspects of China's development performance: rapid economic growth, uneven sectoral growth, and uneven regional development.

It is found that non-physical factors, especially the increasing efficiency introduced by market orientations, contributed significantly to China's rapid economic growth. The finding is consistent with the fact that China began to open up to market systems, and helps to clarify a puzzle in the growth literature concerning the sustainability of China's economic growth since 1978. If China's growth was mainly driven by massive physical inputs, as estimated by neoclassical TFP accounting (*Economic Daily* 20 Oct 1995; Borensztein and Jonathan 1996), then China would follow in the former Soviet Union's footsteps, and would not be able to maintain its growth momentum for long. This is obviously not consistent with the strong growth momentum that China has demonstrated in recent years. The main problem with the neoclassical growth wisdom lies in that it ignores a fundamental difference between post-1978 China and the former Soviet Union; that is, the former is market-oriented and the latter was not. The empirical test of the two-way net-increase effect model shows that China can maintain growth momentum as long as it continues to carry out market-oriented reforms to improve efficiency in resource allocation and utilisation while increasing human capital as well as physical capital inputs.

It is found that the interaction between increased inputs and improved efficiency in input allocation and utilisation through market orientations also provides an explanation for China's uneven sectoral growth and the ensuing structural changes. Using the two-way net-increase effect model, the study shows that uneven changes in market demand and increasing competition led to resource flows from sectors with weaker market demand and lower productivity to sectors with stronger market demand and higher productivity and, therefore, led to uneven sectoral growth and the

ensuing structural changes. Market forces released in the re-linking or opening process, therefore, lay behind the rise of efficient sectors such as non-primary industry and non-state owned enterprises, and behind the increased efficiency and accelerated economic growth in post-1978 China.

It is found that market forces released in the re-linking or opening process also lay behind China's uneven regional development. China's inter-provincial output convergence and coastal-interior output divergence was mainly due to the rise of the relatively backward southeast coastal Five Dragons which made better use of market mechanisms in economic growth, especially in the growth of efficient non-primary industry and non-state owned enterprises, than other parts of the nation. Meanwhile, market orientations led to increasing regional autonomy and the relaxation of government intervention in regional income redistribution, and thereby to the increasing inter-provincial and coastal-interior divergence in livelihoods.

All the findings point to the fact that the key dynamics of China's development, whether in terms of its rapid growth, its uneven sectoral growth, or its uneven regional development, should be found in the interaction between inputs and the efficiency in input allocation and utilisation introduced by market orientations, especially in market forces released in the re-linking or opening process.

Main challenges and policy suggestions

In the light of the nature of China's strategic change and the key dynamics of China's development in the re-linking or opening process, it is possible to analyse the challenges that China faces and, therefore, to make some policy suggestions. There are many challenges, but attention is given to the most important.

The first are ideological conflicts. As analysed previously, the socialist re-linking strategy is a reaction to the socialist de-linking strategy based upon orthodox Marxism-Leninism. In combining socialism with market systems in the re-linking or opening process, Communist ideology in the orthodox Marxist-Leninist tradition is challenged. Communist ideology stresses collectivism and selflessness, for instance, but market systems carry within them the seeds of individualism and self interest. Communist ideology stresses equality, but market competition may result in increasing inequality. Communist ideology denies exploitation of the poor by the rich, but market forces lead to the rise of private ownership and may lead to various kinds of exploitative relationships. Communist ideology proposes proletarian dictatorship and a one-party system at the socialist stage, but diversification of ownership and the principle of fair competition arising in the re-linking process pushes an economy toward Western-style democracy and multi-party systems. Communist ideology demands that government officials be honest in performing their duties, but the principle of free exchange can lead toward the exchange of money for power and corruption in politics.

To meet the challenge of ideological conflicts, there are basically three options. The first is to give up the re-linking strategy and shift back to the previous de-linking strategy. The second is to give up Communist ideology, as occurred in the former Soviet Union. The third is to combine the two to accommodate one another.

The first is actually an *impasse* as shown by China's past experience and the current situation in North Korea. The second does not look very promising either since most states in the former Soviet Union have not performed well. The third seems, therefore, to be the only promising alternative for China, and has been the option adopted by the Chinese Communist Party so far. That is to say that China has to modify its Communist ideology to accommodate it to the re-linking or opening process on the one hand, and modify market systems to accommodate them to Communist ideology on the other. As can be imagined, this is not an easy task, especially in a nation with a population of 1.2 billion. The approach will inevitably lead to considerable confusion and uncertainty in the minds of both the Party members and the ordinary people, and efforts will have to be made to find reasonable explanations for all the conflicting phenomena arising from re-linking China's version of socialism with market systems.

The second set of challenges are growth constraints. It was estimated that if China maintains an average annual GDP growth rate of 7 per cent between 1994 and 2010, the Chinese economy will grow from 40 per cent to 82 per cent the size of the USA economy (*The Economist* 9 December 1995:25). Actually, the Chinese economy grew at a higher rate than 7 per cent in the 1990s, and will certainly surpass the USA in economic size in the first quarter of the 21st century if it can maintain its growth momentum. However, there are some growth constraints which China has to overcome.

- Population. China adopted tough policies of family planning, eg, the so-called one-child policy. As the increase in labour inputs has no significant contribution to GDP growth in a labour-surplus developing country like China, as shown in the empirical test of the two-way net-increase model, a low population growth rate is essential for China to catch up with

developed countries in per capita terms. However, the tough policies work only in cities, not in rural areas. As a result, rural fertility rates are much higher than urban fertility rates, and problems will ensue.[2] On the one hand, given the huge gap between rural and urban areas in China, the high fertility rates of less educated rural residents will slow the improvement in the quality, especially the educational and cultural endowment, of total population. On the other hands, the low fertility rates of urban residents will lead to increasing age-dependency ratios, lower saving rates, higher medical costs, and increased social security needs in cities. All these problems have to be addressed properly to maintain long-run growth momentum, and appropriate approaches to more balanced population growth need to be found to this end.

- Physical and human capital inputs. In terms of physical capital inputs, China did quite well in mobilising domestic and international resources, and was among the biggest recipients of foreign investment in the 1990s. As long as China can maintain political stability and adopt investor-friendly economic policies, the necessary increase in physical capital inputs will not present a problem. As far as human capital input is concerned, however, China seems to have quite a few problems. For instance, an increasing number of children in rural China drop out of school to earn income for the household, and the educational and cultural endowment of the next generation is thereby threatened. Compared with people in other professions such as businessmen, singers, and managers in foreign firms, intellectuals at schools, universities, and research institutes are underpaid.

[2] It was estimated that about 80 per cent of families in China have more than one child, and these

An increasing number of them have abandoned their professions to go into business, and the development of elementary education and basic science is being jeopardised. Such problems are potential threats to sustainable economic growth, and efforts should be made to guarantee the education of children in rural areas, and improve the living conditions of intellectuals.

- Domestic and international markets. As far as domestic markets are concerned, China's commodity markets have been undergoing a change from demand exceeding supply to supply exceeding demand since 1978, especially in the 1990s (*Press Digest* 22 June 1997). It was estimated that up to 1996 commodity stocks reached 1327.6 billion *yuan* (*Economic Daily* 3 July 1997). Major efforts should be made to adjust the relationship between demand and supply in order to find new growth points from time to time.[3] As far as international markets are concerned, China faces increasing competition from other newly industrialised economies in Southeast Asia, such as Malaysia, Thailand, and Vietnam, not to mention South Korea and Taiwan. Efforts should be made to make full use of China's comparative advantage and accommodate the Chinese economy to the changing demand in international markets in order to expand foreign trade. Only once domestic and international markets are developing can China continue to improve efficiency in resource allocation and utilisation and, therefore, maintain its growth momentum.

The third set of challenges are in the form of structural adjustments. Rapid and uneven economic development in the re-linking process inevitably leads to radical

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families are mainly in rural areas.

[3] The accumulation of stocks of commodities indicates that measures should be taken to discourage the development of economic sectors where there is limited demand for their products, and encourage the

changes in economic and social structures, and China has to face the challenging task of major structural adjustments. To begin with, the rise of non-primary industry indicates that China is moving from an agricultural to a non-agricultural economy, and from a rural to an urban society. China, therefore, has to deal with problems accompanying the resource flows from primary to non-primary industry, from rural to urban areas. An increasing number of surplus rural labourers will move into TVEs or urban non-primary industry, and this will exert considerable pressure on urban infrastructure including transportation, housing, and electricity. As the resource flows are a welcome phenomenon in labour-surplus developing countries, efforts should be made to develop the urban infrastructure to ensure the smooth progress of the process. Meanwhile, appropriate approaches have to be found to continue the reform of agricultural production systems in order to ensure the development of agriculture in the process of the industry structural adjustments.

Meanwhile, the rise of non-state owned enterprises and the decline of state-owned enterprises indicates that China is undergoing a process of *de facto* denationalisation, and has to deal with problems such as the unemployment of workers in former state-owned enterprises, increasing polarisation between the rich and the poor, and the decreasing financial resources of the state. Combined efforts will have to be made to deal with the problems. On the one hand, appropriate approaches have to be found to the reform of state-owned enterprises in order to improve efficiency. The theoretical analysis and empirical tests about determinants of uneven sectoral growth in Chapter 5 suggest that the reform of state-owned enterprises should be in three directions: adaptation to market demand; productivity improvement; and outward-looking enterprise development. Only in this way can

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development of the sectors where there is a rising demand for their products. This is very important in a re-linking or opening economy like China where market forces are combined with state planning.

state-owned enterprises become more competitive in both domestic and international markets, and achieve development in the opening process. On the other hand, appropriate approaches should be found to help the unemployed workers in former state-owned enterprises settle into new businesses, to control polarisation by adjusting income distribution policies, and to increase the government's financial resources by means such as taxation reforms. As the complete collapse of state-owned enterprises would threaten social and political stability in the re-linking or opening process, and was proven to be harmful to economic development in the experience of some of the independent states of the former Soviet Union, the above combined efforts might be a good alternative.

Furthermore, the rise of coastal and open regions indicates that China is undergoing a radical structural adjustment in terms of the realignment of regional economies. The rise of these regions contributed to China's economic miracle, but the increasing disparities both between coastal and interior regions and between open and non-open regions in terms of development levels and economic structures will threaten the stability and unity of the nation. To deal with the problem, as suggested by the theoretical analysis and empirical tests about sources of uneven regional development in Chapter 6, efforts should be made to help backward interior and non-open regions achieve increasing market orientations and the ensuing efficiency gains. To this end, the special policy treatment that the Chinese government gave to coastal and open regions should be extended to interior and non-open regions as soon as possible. Only in this way can backward interior and non-open regions catch up with

coastal and open regions, and, in the meantime, can the widening of inter-provincial livelihood disparities be reduced or reversed.[4]

The fourth challenge is in the area of development administration. All the above point to the importance of development administration. The role of government must not be weakened in the process of re-linking with, or opening up to, market systems. On the contrary, it becomes more important and should be strengthened. This is because socialist re-linking involves radical economic, social, and political transformations, and in the process the government has to face many unprecedented challenges. Problems such as ideological conflicts, growth constraints, industry and ownership structural changes, polarisation, urbanisation, and uneven regional development all should be handled with great caution, and good governance is extremely necessary. As quite a few of the officials in China were trained in the de-linking period, they do not have the kind of understanding of governance needed in the macro-administration and micro-administration of development in the re-linking or opening process. This might become a potential threat to China's sustained development.

To meet the challenge, good governance developed in advanced market economies should be introduced into China. Given that Western countries are the most advanced market economies and have accumulated rich experiences in macro-administration and micro-administration of development in a competitive market context, China should learn from their experience in the process of opening up to market systems. China has increased its contacts with Western countries in many fields such as trade, investment, science and technology cooperation, and education since 1978, but governance seems to remain a 'forbidden zone'. An explanation for

[4] As shown in Chapter 6, the backwardness of the interior (and non-open) regions lay behind the widening of inter-provincial livelihood disparities. The more rapid growth of these regions can,

this might be found in the conventional way of thinking—China's socialist governance is fundamentally different from capitalist governance in Western countries. As global market integration strengthens, good governance needed for administration in a competitive market context should transcend ideological boundaries. Therefore, the conventional way of thinking should be abandoned to ensure the introduction of good governance from advanced market economies.

Good governance, as pointed out by Larmour (1990, 1997, and 1998), is not just valued in itself. It is believed to lead to development. There seem to be three senses in which 'governance' is linked to development: democratic governance, effective governance, and coordination governance. In a sense, therefore, good governance can be defined as 'open, transparent, accountable, equitable and responsive to people's needs' (Downer 1997:1). Given China is in a process of transition to a market system, all the dimensions of good governance are needed, but attention should be focused on the following.

- Political system reforms in the direction of democratisation. Conventional political systems center power on an appointed Party secretary or a few appointed Party committee members, and the real policymaking process is beyond the knowledge of ordinary people and the media. Policies made under this process are liable to be inappropriate, and policymakers are liable to be bribed without surveillance by the masses and the media. Particularly as the principle of commodity exchange is gradually permeating politics in the process of opening up to market systems, the policymaking process has to be increasingly democratised to ensure good governance. An increasing number of administrators at high levels of the

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therefore, narrow the inter-provincial livelihood disparities.

government should be elected directly by a constituency, and policymaking should be open to the constituency and the media alike. In that case, more and more non-party personages or people from parties other than the Communist party will participate in the process of policymaking, and the current political system will need to be modified in one way or another.

- Rules for effective competition. Successes in economic development depend heavily on economies following the rules that govern competition in domestic and international markets.[5] The economies that follow these rules are effective in the competition, and those that do not are punished sooner or later. The current Asia financial crisis is a good example in point. Although there are different opinions on the direct causes of the crisis, such as excess investment, excess foreign loans and debts, excess trade deficit, excess budget deficit, and corruption, the fundamental problem behind all these direct causes lies in the area of governance, especially the lack of rules for effective competition in the field of finance. This has drawn attention from the new Chinese Cabinet headed by Premier Zhu Rongji, who is trying to introduce a complete set of governance skills in the field of finance from Britain—a country with rich experience in financial management. As China increasingly opens up to market systems, rules for effective competition in other fields also should be introduced and followed.

To ensure the introduction of good governance from advanced Western countries, training of government officials is necessary. Administrators and

professionals from various disciplines should attend the training, and gradually replace those without such training at various levels of the government. Meanwhile, as China is a labour-surplus developing country just opening up to market systems, governance skills introduced from the West should be accommodated to the needs of China, and those unsuitable to China's reality should be modified or transformed. In accommodating Western governance to China's reality, China's version of good governance will take shape to meet the challenge in the area of development administration.

Implications of the study for developing countries

China is the largest, and also the most important, developing country in the world. Insofar as China faces development problems similar to, or even the same as, those faced by other developing countries, China's experience can shed light on some key development issues. The study of China's development drive in the re-linking or opening process has two most important implications for developing countries.

First, China's experience suggests that developing countries should actively participate in the global market economy by opening up to market systems both domestically and internationally. Global market integration is an inevitable process, a reality that all developing countries have to face. The process can benefit all participating nations in one way or another, though the benefits are shared unevenly between them. The uneven distribution of benefits implies that global market integration may widen inequalities, but yet provide opportunities for the poor. The result depends heavily upon what development strategies the participating nations

[5] For example, budget balance, trade balance, foreign debt, and investment, etc. are all subject to certain rules in a competitive market context, and these rules are lacking in a transition economy like China.

adopt. It is useless for a developing country to keep blaming global market integration for their poor performance and, therefore, either adopt an inward-looking trade and development pattern as suggested by structuralism or pursue a strategy of de-linking from the market system as suggested by the dependency/world-system paradigm. Such passive participation in the global market economy or socialist de-linking strategy denies the advantages of global market integration, and cannot lead to sustained development. Only once developing countries open up to market systems will there be the opportunities for their catching–up and, therefore, the opportunities for the narrowing of inequalities between the rich and the poor.

China has had both positive and negative experiences in this regard. In pursuing a socialist de-linking strategy, including an import-substitution trade and development pattern, China achieved a high rate of economic growth by mobilising the 'socialist consciousness' of the masses in the years immediately after 1949. The rapid economic growth could not, however, be sustained and China suffered from one crisis after another owing to massive problems caused by socialist de-linking and passive participation—absolute poverty and depressed consumption, lack of efficiency in resource allocation and utilisation, political turmoil, and international isolation. As a result, China lagged far behind its East Asia neighbours in development performance, not to mention the advanced Western countries. In pursuing a socialist re-linking strategy, by contrast, China witnessed sustained rapid economic growth and a remarkable improvement in people's livelihood, and China's modernisation process including economic structure changes and urbanisation was accelerated. Although the re-linking strategy and active participation also brought about some problems such as increasing social inequality, a widening of regional disparities, ideological conflicts, and corruption, China's overall development

performance over the period has been quite impressive. Since 1978, China has surpassed all its East Asian neighbours in terms of economic growth, and has made considerable progress in narrowing the income gap with developed countries.

It is encouraging to see that an increasing number of developing countries have realised the undesirable consequences of the socialist de-linking strategy and passive participation in the global market economy, and most of these countries have begun to open up to market systems. We should be aware, however, that the de-linking strategy and passive participation may take different forms, not only the one determined by the pursuit of orthodox socialism, including an import-substitution trade and development pattern, as was the case of China in the pre-1978 period. Some developing countries may maintain a religiously hostile attitude towards the existing worldwide market system, and try to de-link from the global market economy in one way or another. Others cannot bear to part with traditional self-sufficient economic systems and the corresponding social and political systems, and are reluctant to open up to market systems. All these forms of de-linking and passive participation are obstacles to development, and have to be replaced by various versions of active participation to ensure sustainable economic and social development. Each developing country has to find its own approaches to active participation in the global market economy or opening up to market systems both domestically and internationally. However, the approaches have to fit in well with the national conditions including past experience, ideology, culture and religion of the country concerned, and complete westernisation as suggested by the modernisation/diffusion paradigm is not a good option. In China's case, market mechanisms are combined with Chinese socialism, and the approach has been quite successful so far.

Secondly, China's experience points to the importance of policy reforms and, therefore, the vital role of the government in developing countries. Market systems are mature in developed countries where they have taken centuries to develop. Developing countries are, by contrast, in an inferior position in the process of increasing global market integration since they have to replace various versions of self-sufficient systems or command systems with market systems. Obstacles to domestic and international marketisation have to be overcome, and 'market failures' in the re-linking or opening process have to be corrected. In such countries, government intervention is not necessarily against 'free' markets, as suggested by some neoclassical economists; it can well be a necessary condition for market forces to be released or 'freed'. As long as a government gives top priority to development, it has to carry out market-oriented policy reforms to ensure active participation in the global market economy.

Without a series of radical reform measures initiated by the realist tendency headed by De Xiaoping from 1978 onwards, socialist de-linking could not possibly have given way to socialist re-linking with market systems, market forces released in the re-linking process could not have functioned well, and China's extraordinary development performance could not be imagined. This study has not gone into the details of all of the reform measures, but sufficient to say that they involved all fields of economic and social life, such as reforms in pricing systems, reforms in finance, reforms in land distribution and utilisation, reforms in enterprise management, reforms in taxation, reforms in both domestic and foreign trade, reforms in wage systems, and reforms in welfare and social security. All these reforms were necessary conditions for establishing market-oriented systems, and the Chinese government was quite successful in carrying them out. Although some reform measures have also been

taken in political fields, they have been very limited so far. As the re-linking or opening process goes on, it can be expected that an increasing number of political reform measures will have to be taken, and policymaking will become more and more democratic and effective.[6]

It should be pointed out that owing to different national conditions including past experience, ideology, culture, and religion, the policy reform package can differ widely from one developing country to another. In China's case, the policy reform package focused on correcting the previous comprehensive socialist de-linking strategy and, therefore, covered almost all fields in economic, social, cultural, and political life. In other countries which have not pursued a comprehensive socialist de-linking strategy, the focus of policy reforms may only be to overcome religiously hostile attitudes toward the existing world market system, abandon the inward-looking trade and development pattern, or destroy the patriarchal land tenure system, and so on. Nevertheless, appropriate policy reform packages have to be found to ensure active participation in the global market economy and sustained development in the process of increasing global market integration.

In conclusion, it should be pointed out that the dynamics of development in an opening economy like China are very complicated, and there are many approaches to addressing the issue. The study can only shed light on some aspects of the issue, and the innovative modelling practice applied in the study is subject to shortcomings. The study focuses on the importance of market forces released by radical policy reforms, and does not explore deeply other variables that may have influenced the course of development in the opening Chinese economy. Especially, it does not give much attention to the weaknesses in China's policy reforms and opening process. The

[6] The new Cabinet headed by Premier Zhu Rongji has taken initiatives in political reforms, and China's future depends heavily on the success of the reforms.

current Asian financial crisis indicates that all weaknesses have to be identified and overcome in a timely way to ensure sustainability of development. It is suggested that efforts be made in these directions in future studies.

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